H&A TRAINING

First Aid Training Made Easy

First Aid Manual

H & A Training would like to thank the following people and organisations for their support, advice and contributions with the publication, and contents of this First Aid Manual

The Australian Resuscitation Council for text, information and artwork

Asthma Foundation of NSW for text, information and artwork

Asthma Australia for text, information and artwork

National Heart Foundation of Australia

Epilepsy Association of New South Wales

RPA Allergy Unit

Diabetes New South Wales

WorkCover New South Wales

The Ambulance Service of New South Wales

SIDS and KIDS – Hunter Region

Stroke Foundation

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Disclaimer
The information in this book is the most current guidelines of the Australian Resuscitation Council at the time of printing. This book is designed to be an information resource, and is in no way a substitute for attending a First Aid Course with an approved provider.
Many organisations and resources have been consulted in the writing of this book to maintain its accuracy. However, it is impossible to cover all potential aspects in an emergency situation, and the authors of this book accept no responsibility for any injury or damage that may occur as a result of any of these procedures. If you have any problems or queries with information contained in this book, and then please consult your local health authority

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First Edition 2002
Fourteenth Edition May 2024

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RTO Provider Number 90871– Nationally Recognised Training.
ISBN: 0-9581114-0-5

Clipart by - Corel Draw
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1 Basic First Aid Action Plan

Our First Aid Course provides you with the opportunity to learn new skills and help save lives. In every module, we have reproduced the basic first aid plan. This is the start of the treatment regime for all first aid situations. It is our first aid basic plan of treatment. Learn the ABC of first aid as printed here.

Assess the scene

Protect yourself
Protect the public
Protect the casualty
Phone for help

Dangers can include:

- Needle stick injuries
- Body fluid contamination
- Injuries caused by glass, metal, petrol or gas fumes
- Electrical wires / lightning
- Aggressive behaviour / drugs
- Fire / smoke
- Back injuries to either the casualty or the first aider
- Chemical fumes
- Traffic
- Snakes or spiders

Assess the casualty (Are they alive)?

CHECK

Airway
Breathing

Assess the Casualty:

- Is the casualty awake and responsive?
- Is the casualty's airway clear?
- Is their chest rising and falling?
- Can you hear any breathing?
- Are they making noises such as: wheezing, snoring, or gasping?
- Can you feel any breath on your cheek?
- Are they going blue in the face?
- Are there signs of shock?

Assess the casualty for injuries

CHECK

For injuries

- Are they bleeding?
- Is there swelling?
- Are their limbs deformed?
- Are there puncture wounds or scratches present?

If an Ambulance is required - call immediately - do not delay

Aims

First Aid is the initial emergency treatment given to a person who has been injured in an accident or suddenly falls ill whilst waiting for medical help to arrive. Medical help could be in the form of an Ambulance Officer or Doctor.

What are the aims of first aid?

- Preserve Life.
- Protect the unconscious casualty.
- Prevent the condition from becoming worse.
- Promote an early recovery by reassurance.
- Seek Medical help.

How can you help preserve life?

- ✓ Assess the situation or accident quickly.
- ✓ Seek help immediately and give correct and precise information.
- ✓ Consider all dangers to yourself, bystanders and the casualty.
- ✓ If danger exists then move the danger away from the casualty. If you cannot move the danger then carefully move the casualty.
- ✓ Prioritise casualties. **The unconscious casualty has priority in any situation.**
- ✓ Protect the unconscious casualty by placing them into the lateral position and try and prevent the casualty's condition from getting worse.
- ✓ Initial first aid can save lives. By commencing CPR, stopping any bleeding and watching out for and treating shock, **DOES** help save lives.
- ✓ Reassure the casualty. The calmer the casualty is, the slower their heart rate is. The slower their heart rate is, the slower the blood loss is. The slower the blood loss, the slower shock may occur.
- ✓ Recognise life threatening situations and injuries.
- ✓ Understand your limitations as a first aider. You are not an expert, just do your best.

First Aid and the Law:

First Aiders are sometimes wary of administering first aid treatment, as they are afraid of being sued by the casualty if they make a mistake. In an emergency, and if a person is unconscious, the law states that the injured casualty has in fact given you permission to perform first aid. This consent is given as their life is in peril and they are not in a condition to make an informed decision. If first aid treatment is not given the casualty will die. A First Aider with first aid training is expected to be able to: Assess the situation and prioritise casualties and call for help. Help prevent injuries or illnesses from deteriorating, until medical help arrives. Follow the guidelines that the Australian Resuscitation Council set forth, that are in this First Aid manual**.** There is no documented case of a person being sued for administering First Aid in Australia**.**

Aims

Consent:

Competent adults are legally entitled to refuse any treatment, even if it is life-sustaining and/or their decisions are not for their own benefit. Substitute decision-makers, such as parents or guardians of minors, can refuse treatment for the before mentioned but only if it is in the "best interests" of their charge.

Cultural Awareness:

The role of the first aider depends on gaining and honouring the trust of the casualty. Maintaining trust requires attentiveness to the quality of listening and respect that is offered to casualties and finding culturally appropriate ways of communicating that are courteous and clear. The first aider needs to maintain respect for privacy and dignity and pay careful attention to the casualties consent and confidentiality.

A strong sense of cultural awareness is required for all first aiders. Cultural awareness is required for treating casualties from diverse backgrounds. You need to be able to value different cultural groups and treat them with respect and sensitivity. It may sometimes be necessary to communicate through verbal and non-verbal communication and you need to have the ability to identify issues that may cause conflict or misunderstanding.

Medical Alert Bracelet:

MedicAlert is recognised nationally, it is an emblem that is engraved providing instant access to primary medical conditions/allergies or "special needs". These details can range from person to person and they can be custom engraved with an ID number and a 24hr telephone hotline number to call to find out the casualties condition/allergies, others can be pre-engraved with the casualties condition ie: Peanuts, Latex.

If an Ambulance is required - call immediately - do not delay

First Aid Record Form

Date of injury or illness: / /

Time and date reported: _____

Name of person receiving treatment: _____

Position held:

_____

_____

_____

Description of injury or report of illness (what happened)

_____

_____

_____

Nature of injury or illness (signs and symptoms)

_____

_____

_____

Sample

First aid treatment record

_____

_____

Has the injury/incident involved any of the following?

First aid	Ambulance	Hospital	Insurance	Time off work
☐	☐	☐	☐	☐

First aid attendant name: _____

Fist aid attendant Signature: _____

Patients signature: _____

Names of witnesses: _____

If an Ambulance is required - call immediately - do not delay

4 Infection Control

As First Aiders, we are trained to assist casualties who are sick or injured. The risk of cross infection is very low. However, every First Aider needs to take precautions with all first aid situations. The use of gloves, glasses and facemasks will protect both you and the casualty from the risk of infection.

Bodily fluids can penetrate the body through open wounds, sores, cuts, the mouth and the eyes.

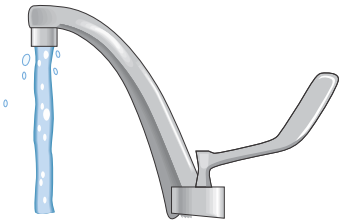
Common types of infections

- Colds
- Glandular fever
- Hepatitis
- Meningitis
- HIV infection
- Measles, Mumps, Chicken Pox

How they are passed on

- Blood and body fluids – saliva, sneezing, vomit, pus from infected sores, urine, faeces, vaginal and seminal fluids.
- Hypodermic needles –sharing a needle, teaspoon, or being stabbed by an infected needle.
- Blood transfusions with infected blood or plasma.

Before administering First Aid:



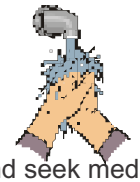
- ✓ Wash hands.
- ✓ Use latex, vinyl or disposable gloves.
- ✓ Use a plastic apron.
- ✓ Use safety glasses to protect the eyes.
- ✓ Use a resuscitation mask if available.

During First Aid Treatment:

- ✓ Wear gloves that are not thin, worn, or torn.
- ✓ Wear two pairs of gloves if possible.
- ✗ Do not cough or sneeze onto the casualty's wounds.
- ✓ Use clean bandages and dressings.
- ✓ Clean wounds and try not to get dirt into them.
- ✓ Wash off any body fluids immediately. If you are accidentally cut and there is blood from the casualty near or in your cut, wash the cut immediately with running water, cover the wound and seek medical advice.

After Administering First Aid Treatment:

- ✓ Dispose of gloves, blood soaked bandages and pads properly.
- ✓ Wash facemasks and any contaminated equipment in bleach. Soak them in the bleach solution for a minimum of 30 minutes.
- ✓ Wash hands thoroughly.
- ✓ Wash blood off any clothes or surfaces with bleach.

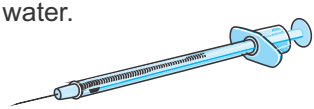


Contamination by Body Fluids:

Eyes and mouth: Wash thoroughly with cold running water and seek medical advice immediately. Hands: Wash thoroughly with soap and running tap water. Wounds: Wash with antiseptic, cover and seek medical advice immediately.

Procedure for Needle Stick Injuries:

- ✓ Wash the injury immediately with cold running water.
- ✓ Promote bleeding.
- ✓ Apply antiseptic solution to injury.
- ✓ Dress the wound.
- ✓ Go to the hospital immediately where they will arrange pathology tests and counselling.
- ✓ Try not to panic. The calmer you are the slower your heart will beat.



To further prevent accidents always handle the situation as if the casualty is infected.

Disposal of contaminated materials:

ALWAYS WEAR A GOOD SET OF LATEX GLOVES WHEN DEALING WITH CONTAMINATED MATERIALS

Dressings, gloves and bandages should be double bagged, ensuring they are securely sealed, and arrange for disposal. – Ambulance Station, Hospital, Doctor Surgery. Any used needle or syringe should be carefully placed in a sharps or plastic container, and then the container placed in a plastic bag and your local council contacted for details of removal or take them to your local chemist, doctor's surgery, hospital, or ambulance station for disposal. Body fluids should be cleaned up with absorbent paper towelling or rags, and then double bagged in plastic bags ensuring they are securely sealed, and disposed of carefully.

5 Assessing the Casualty

The DRSABCD or Basic First Aid Action Plan is the start of all treatment.

This plan will identify any life threatening injuries the casualty may be suffering from that will need urgent attention.

D – Danger – Is the area safe?

R – Response – Check for a Response. Is the casualty conscious?

S – Send for Help – Call for an Ambulance

A – Airway - Is the airway open and clear?

B – Breathing - Look, Feel and Listen for breathing

✓ If breathing is absent or the casualty is having breathing difficulties and no signs of life are present commence CPR.

Examination of the Casualty:

LOOK, FEEL, OBSERVE, AND LISTEN

Look for visible signs of injuries.

? **Does the casualty have a medical alert necklace or bracelet?**

? **Does the casualty have a tattoo on the inside of their wrist with a medical problem written there?**

? **Is the casualty pale, sweaty, blue?**

? **Is the casualty bleeding?**

? **Are there any wounds, puncture marks, contusions?**

Are they suffering symptoms?

Ask them:

? **Do they have a headache?**

? **Are they in pain? If so where does it hurt?**

? **Do they feel sick, dizzy, or unwell?**

? **What happened?**

Find out the casualty's history

If the casualty is conscious then take down a history. If they are unconscious, ask their friends and family or bystanders for help.

? **Do they suffer from any allergies?**

? **Have they had any previous illnesses?**

? **Are they on any medications?**

? **When was the last time the casualty had anything to eat or drink, and what it was?**

? **What is their name and age?**

If an Ambulance is required - call immediately - do not delay

Complete a Head to Toe Examination

Look and feel the head and neck

✖ Don't let the casualty move their head or neck.

✓ Run your fingers gently over the head and neck and look and feel for any bleeding, swelling, or lumps.

✓ Look at the face, nose, mouth and ears. Is there any bleeding or clear fluids running from the ears or nose?

? Are there any loose or knocked out teeth?

? Can the casualty talk and move their mouth?

? Is there any pain or deformities?

? Are their pupils equal in size?

Look, listen and feel the chest

✓ Watch the rise and fall of the chest.

✓ Notice any increase in breathing or difficulty in breathing.

? Does the rib cage look deformed?

? Can you hear noisy breathing, a sucking noise or gurgling?

? Is there pain on breathing?

Look, and feel the abdomen

? Is there any visible bleeding?

? Is there any pain in the region?

? Is there any swelling, bruising, trauma?

? Check the pelvis – does it hurt?

Look and feel the limbs

? Are there any deformities, bruising, swelling, or bleeding?

? Have the limbs displayed a loss of strength, movement or feeling?

? Is there numbness, pins and needles, or pain?

? Is the limb cold to touch and/or blue in colour?

? Are there any puncture wounds?

Look and feel the spine

If the casualty has no pain or pins and needles, then gently log roll the casualty into the lateral position, supporting the neck and head.

✓ Look at the neck and spine.

✓ Feel for deformities.

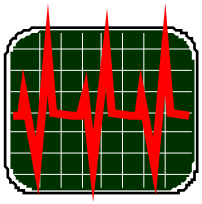
✓ Check for bleeding, bruising, swelling or lacerations.

5 Assessing the Casualty

If pain is felt in the back or the casualty complains of pins and needles or numbness in the legs or arms

DO NOT MOVE THE CASUALTY

Signs and Symptoms are missed in First Aid by rushing and not examining the casualty thoroughly



Vital Signs

Vital signs consist of the pulse, respirations, skin colour and the level of consciousness. The pulse and respirations are counted over one minute. Do not take the pulse with your thumb, as your thumb has a pulse in it.

Pulse Rate	Respiratory Rate	Skin Colour	Consciousness
Monitor the pulse **Rate –** fast or slow **Rhythm –** regular or irregular **Strength –** strong or weak	*Monitor their breathing* **Rate –** fast or slow **Rhythm –** regular or irregular **Depth –** shallow or deep **Sounds –** noisy, wheezy, gurgling, sucking	*Monitor Skin Changes* Pink Blue Warm Cold	*Level Changes* Drowsy Semi-conscious No response to stimuli

Normal Vital Signs

	Pulse Rate	Respiration Rate	Blood Volume
Adult	72 average	15 breaths per minute	6 litres
Older child 9 - 14	80 average	17 breaths per minute	5 - 6 litres
Child 1 – 8	90 average	20 breaths per minute	2.5 litres
Infant >1	120 average	30 breaths per minute	750mls

Manual Lifting:

There is probably no safe method of lifting a heavy weight. If there is any doubt about the ability to lift an object, help should be sought or a mechanical aid used. Various state laws specify statutory maximum loads for manual lifting for both males and females.

If an Ambulance is required - call immediately - do not delay

Unconscious Casualty

Unconsciousness is caused by an interruption of the brains normal activity. This can be caused by strokes, head trauma, seizures or lack of oxygen.

When a casualty is unconscious, their muscles become relaxed, including their swallowing muscles, and if the casualty is not placed on their side, they can choke on their own fluids. If an unconscious casualty is left on their back, their tongue may fall back and block the airway. An unconscious casualty is still breathing and has a pulse, but may not respond to gentle shouting and stimulation. They look like they are in a deep sleep, but cannot be woken up. They may not respond to verbal or painful stimuli

Causes of unconsciousness

A – Alcohol or asphxiation
E – Epilepsy
I – Insulin – Diabetic
O – Overdose
U – Uraemia – Kidney damage
T – Trauma
I – Infection
P – Pretend, Pressure, or Poison
S – Stroke, Spinal Injury, Shock

Infants and small children should never be shaken as this can cause death or severe brain injury. They should be assessed by shouting and gentle stimulation.

Signs and symptoms

- Casualty has a pulse.
- Casualty is breathing.
- Casualty seems to be sleeping but cannot be woken up.
- Casualty may moan or groan when stimulated or asked to open their eyes.

Treatment of an unconscious casualty

✓ Seek medical aid immediately.
✗ Give the casualty Nil by Mouth.
✓ Place the casualty into the lateral position supporting the neck and Head.
  - It obtains and maintains an open airway.
  - Although you cannot swallow your tongue, the tongue can fall across the airway and block it. When placed in the lateral position the tongue falls away from the back of the mouth.
  - Fluids and objects will drain away from the mouth.

If an Ambulance is required - call immediately - do not delay

6 Unconscious Casualty

- ✓ Place the head in a low position to allow free drainage of fluid.
- ✓ Even if cervical or spinal injury is suspected, the casualty must still be gently and carefully log rolled into the lateral position.
  - ■ One person supports the neck and head.
  - ■ One or two people support the back and the body.
  - ■ One person supports the legs.
  - ■ Roll the body smoothly and gently and in alignment with no twisting or jerking.
- ✓ Avoid pressure on the chest.
- ✓ Loosen any tight clothing from around the neck, chest, and waist. It makes breathing a lot easier.
- ✓ Always talk to and reassure the casualty. Although they look like they are asleep, they can sometimes hear everything you say.
- ✓ Do a head to toe examination.
- ✓ Treat other injuries.
- ✓ Cover the casualty lightly if they are cold.
- ✓ Stay with the casualty and monitor their vital signs.

Place a pregnant woman on her left hand side and support her stomach to allow proper blood flow to the baby and the lower limbs if injuries permit.

Remember the unconscious casualty who is not placed on their side is at risk of an obstructed airway.

These casualties often die from suffocation if the airway is not opened, cleared and maintained.

Potential hazards

- Loss of swallowing and coughing reflexes: this can cause the casualty to choke, as they cannot clear their airway by swallowing or coughing.
- Regurgitation: this occurs in an unconscious casualty as the muscle on the top of the stomach is relaxed and allows gastric juices from the stomach to flow from the stomach into the lungs.
- Vomiting: this occurs when the stomach ejects its contents. If the unconscious casualty's airway is not cleared, it will block the airway. If the unconscious casualty inhales the vomit it will damage the lungs.

Calling for Help

Knowing how to call for help in a life threatening or emergency situation can be the difference between life and death.
When calling for an Ambulance in Australia you call 000 from the home phone or a phone box, 112 from your mobile phone and if you are deaf or have a speech or hearing impairment you can call 106 using a textphone (TTY) or a computer with modem access, to request police, fire or ambulance assistance.

There are a few simple steps to take when making an emergency call:

- Stay calm and call from a safe location.
- An operator will answer and ask you if you need Police, Fire or Ambulance. Say the service that you require. If you are calling using a mobile or satellite phone the operator will ask you for other location information.
- You will then be connected to the nominated emergency service operator, who will take details of the situation.
- Stay on the line, speak clearly and answer the operator's questions.
- Give the nominated emergency service operator the details of where you are, including street number, name, nearest cross street, and locality. In rural areas it is important to give the full address and distances from landmarks and roads, not just the name of the property.
- Don't hang up until the operator has all the information they need.
- If possible wait outside at a prearranged meeting point or in a prominent location for emergency services to arrive to assist them to locate the emergency.
- If you make an emergency call whilst travelling on a Motorway or on a rural road, identifying the direction you are travelling and the last exit or town you passed through will assist emergency services to correctly locate the incident.

If you need medical advice, ask to speak to an Ambulance Officer who will advise you of the treatments you need to perform.

Do not stop any treatment until the Ambulance Officer tells you to do so, as they have to set up the equipment or prepare medications etc.

When the Ambulance arrives

The history, signs and symptoms you collected, the casualty's condition when you found them and the treatment you have given and the effects the treatment had, are important details the Ambulance Officer needs to know.

CPR

CPR is the technique of the manual inflation of the lungs with oxygen, and compression of the heart, therefore pumping oxygenated blood around the body, and keeping the vital organs supplied with oxygen. It is used in an attempt to revive a victim who has had a Cardiac Arrest.

CPR when correctly performed has the chance to either restart the heart pumping normally or to continue artificial circulation, therefore preserving brain functions until medical help arrives, and cardiac defibrillation can be performed.

The casualty stands a better chance of survival if CPR is commenced as soon as possible after a diagnosis is made and help is called.

Basic Life Support Flow Chart		
D	Check for danger	Hazards / Risks / Safety
R	Check Response	If no response
S	Send for Help	000 / 112
A	Check Airway	• Open and clear airway • Check for sign of life • If signs of life are present and casualty is unresponsive roll them onto their side.
B	Check for Breathing	If not breathing or not breathing normally
C	Start CPR	Perform 30 compressions then if willing give 2 breaths and repeat until help arrives or continue compressions
D	Use a Defibrillator	• Attach an AED as soon as possible • Defibrillator increases casualty's chance of survival

If an Ambulance is required - call immediately - do not delay

Compressions

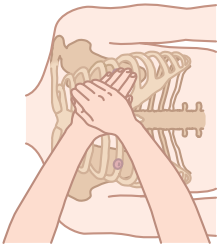
Compressions are performed on a casualty to pump blood around the body.

Infant from (0-1 year)

On an infant we use two fingers in the middle of the sternum between the nipples and compress to 1/3 chest depth (about 2-3cm).

Children

On children we use one or two hands in the middle of the chest and compress to 1/3 chest depth.



Adults

On adults we use two hands in the middle of the chest and compress to 1/3 chest depth (about 5cm).

Rescue Breaths – CPR Guide

	Adult (over 14yrs)	Older Child (9 – 14yrs)	Child (1 – 8yrs)	Infant (birth - 1yr)
Head Tilt	Maximum	Maximum	Minimum	Nil
Pressure	Two Hands	Two hands	One hands	Two fingers
Depth	1/3 chest depth	1/3 chest	1/3 chest	1/3 chest
Breaths	Full Breaths	Normal	Small	Puffs
Breaths	2	2	2	2
Compression rate	30	30	30	30
Compressions per minute	100	100	100	100

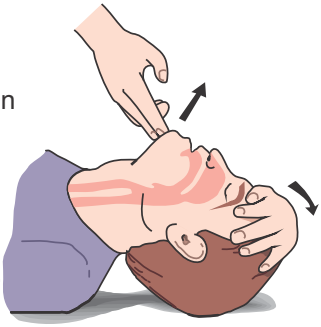
CPR - Breaths

Rescue Breathing

Rescue breathing is the method of artificial breathing for a casualty who is in Respiratory Arrest. Brain tissue will begin to expire after three to four minutes of being denied oxygen. Early resuscitation is essential to maintaining life and keeping the vital organs in the body oxygenated and alive.

There are five methods of performing Rescue Breathing

Mouth - to - mouth rescue breathing



Respirations are given via the mouth. Pinch the casualty's nose or seal the nose with your cheek. On an adult casualty, tilt the head back. On an infant, keep the head in the neutral position. Place your mouth over the casualty's mouth ensuring a tight seal, and blow. This is the most commonly performed method. Turn your head towards the casualty's chest when you inhale to see whether the chest is rising and falling.

Mouth - to - nose rescue breathing

This method is used when the casualty's mouth cannot be utilised due to injury. It is also an easier method of rescue breathing when the casualty is in water. Respirations are given via the nose. Tilt the head back on an adult. On an infant, keep the head in the neutral position. Seal the casualty's mouth and place your mouth over their nose and blow. Do not compress the soft part of the nose with your mouth or you will block the airway. Remove your mouth after each breath, to allow for exhalation and look at the chest to check for the rising and falling of the chest.

Mouth - to - mouth-and nose rescue breathing

This method is used for babies and small children. The amount of air required to inflate the lungs of an infant or child is less than that for an adult. Rescue breaths are given via the mouth and nose. Keep the head level, place your mouth over the baby's mouth and nose, and puff.

Mouth - to - neck stoma method

Rescue breaths are given via a stoma in the throat. A stoma is an artificial opening located in the casualty's neck. The mouth and nose of the casualty must be sealed tightly. Place your mouth over the stoma and breathe into the stoma. The air will be exhaled via the stoma

Mouth - to - mask rescue breathing

Rescue breaths are given via a resuscitation mask.

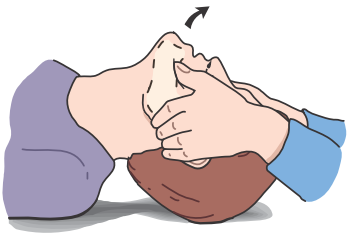
There are two types of resuscitation masks.

Mask 1: Disposable mask: Place the one-way valve into the casualty's mouth with the plastic sheeting over the nose. On an adult, tilt the head back, and place your mouth over the one-way valve and blow. (On an infant, keep the head in the neutral position). Remove your mouth after each breath to allow for exhalation and check for the rising and falling of the chest.

Mask 2: Full Facemask: The mask is fitted over the casualty's mouth and nose, ensuring a tight seal. The tube on the top of the mask is fitted with a one-way valve and thus decreases the risk of cross-infection. On an adult, tilt the head back. (On an infant, keep the head in the neutral position). Place your mouth over the one-way valve and blow. Remove your mouth after each breath to allow for exhalation and check for the rising and falling of the chest.

MOUTH TO MASK RESCUE BREATHING IS THE RECOMMENDED METHOD

- ✓ After each breath, turn your head towards the casualty's chest and check for the rising and falling of the chest. On an adult if the chest does not rise and fall, check that the head is tilted back and the airway is clear.
- ✓ Obstructions of the airway: If the airway is obstructed, clear it. If the casualty vomits, roll them onto their side and clear the airway. Return them onto their back and re-commence rescue breaths.
- ✓ Sometimes a casualty will cough; that is a sign that the casualty is breathing on their own.



8 CPR - Defibrillation

A defibrillator delivers a carefully measured charge of electricity to the chest. The defibrillator has a flat pad. By pressing a button when prompted, a shock goes to the heart, which can correct disorganised electrical conditions within the heart muscle and bring it back to a normal beating pattern.

Modern defibrillators (or AED – Automatic External Defibrillator) are semi-automated, and can possibly be found in companies and shopping centres.

If an AED is available this machine can be used by anyone and is fully prompted.

Procedure:

- ✓ Turn AED on.
- ✓ Follow the prompts.
- ✓ Attach pads to chest.
- ✓ If a shockable rhythm is found the AED will prompt you to push the shock button.
- ✓ If no rhythm is found you will be prompted to commence CPR.
- ✓ Once shocks are delivered you will be prompted to re-commence CPR.

If an Ambulance is required - call immediately - do not delay

Cardiac Arrest

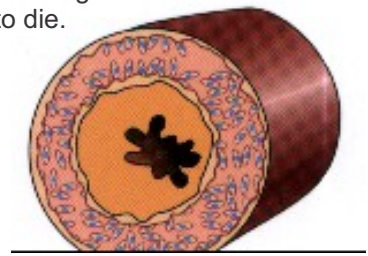
What is a Cardiac Arrest?

A Cardiac Arrest is when the **heart stops beating**, or the heart's rhythm is uncoordinated causing the heart to stop pumping blood, the casualty stops breathing and they are unconscious.

Common causes of a Cardiac Arrest

- Blockage of the arteries.

  This is caused by a build up in the arteries of cholesterol or fatty substances, blocking part or eventually all of the arteries and therefore blood cannot pass through to the heart muscle. Due to the blockage of the arteries, oxygenated blood is not reaching the cardiac muscle, causing the muscle to die.



- Electrocution
- Envenomation
- Drowning
- Shock

Signs leading up to a Cardiac Arrest

- Pain or a dull ache in the centre of the chest.
- Pain radiating down the arm, neck or jaw.
- The chest feels like it is being squeezed in a vice.
- Confusion
- Anxiety
- Sweating
- Skin is pale, cold, and clammy.
- Casualty looks grey and ill.
- Casualty has an irregular pulse.
- Casualty can collapse into unconsciousness.

Diagnosis of a Cardiac Arrest
UNCONSCIOUS
NO SIGNS OF LIFE

Treatment of a Cardiac Arrest

If an Ambulance is required - call immediately - do not delay

9 Shock

Shock is a loss of effective circulation resulting in impaired tissue, oxygen and nutrients delivery and causes life threatening organ failure.

Shock is a life-threatening condition

Causes

- Severe bleeding
- Major trauma
- Fright or bad news
- Fluid loss, due to diarrhoea, vomiting, burns or heat stroke.
- Heart damage – causes a reduction in the hearts ability to pump blood around the body.
- Abnormal dilatation of blood vessels due to infections, allergic reactions or severe brain or spinal cord injury.

Signs and Symptoms may include

- Pale, cold and clammy skin.
- Pale tongue and inside of the mouth.
- Rapid breathing
- Rapid weak pulse (rule of thumb for rapid pulse concern, adults after trauma with a pulse over 100).
- Nausea and or vomiting.
- Weakness, faintness or dizziness.
- Decrease in consciousness level.

REMEMBER:
Most casualties who are injured will suffer shock in varying degrees

FOUR KEY SIGNS OF SHOCK ARE:

Pale – Sweaty – Agitated - Thirsty

Treatment

Follow the Basic First Aid Plan to assess the casualty

- Control bleeding.
- Reassure casualty.
- Rest the casualty in a position of comfort ideally lying down.
- Loosen tight clothing around neck, chest, and waist.
- Keep casualty warm but do not overheat.
- Provide oxygen if available.
- Treat wounds.
- Monitor vital signs.
- ✖ NO EATING OR DRINKING.

Seek medical aid immediately

If an Ambulance is required - call immediately - do not delay

Fainted Casualty

Fainting is a brief or partial loss of consciousness, which occurs suddenly, causing the casualty to fall to the ground. Recovery is usually rapid.

Causes:

- Fright
- Bad news
- Medication
- Sickness / nausea
- Standing for a long period of time.
- Enclosed rooms.
- Drop in blood pressure.
- Cardiac disorder

Signs and Symptoms leading up to:

- Feeling light headed.
- Pale, cold clammy skin.
- Dizziness
- Anxiousness
- Feeling sick, nauseous.

Treatment

Follow the Basic First Aid Plan to assess the casualty

- ✓ Lay the casualty down.
- ✓ Elevate the legs.
- ✓ Do not allow the casualty to stand until fully recovered.
- ✓ If a pregnant woman faints, place her on her left hand side and support her stomach.

If casualty does not recover quickly, consider another diagnosis and treatment and call for an Ambulance.

Brain damage or death can occur if the casualty is left in an upright position, such as standing or sitting in a chair or vehicle.

Heart Attack

The heart requires oxygen to function. Without it, the amount of blood pumped around the body will be compromised. Not only are the cells in the heart in danger of severe damage, but also those contained in the rest of the body. For this reason, any heart related problem that has not been assessed by a Health Professional should be considered a Medical Emergency.

Acute Myocardial Infarction / Heart Attack

The heart needs oxygen to function. Acute Myocardial Infarction (heart attack) is caused by a severe constriction or a total blockage of the cardiac vessels. The death of the cardiac muscle (myocardium) occurs as a result of oxygen deprivation.
It is essential that an Ambulance is called so that treatment is started immediately to minimise or reverse the damage to the heart muscle.

Signs and Symptoms may include:

- Sudden onset of pain with or without exertion.
- Constant, intense, heavy vice like pain in the chest.
- Pain may radiate down the arms, neck, or jaw.
- Breathlessness
- Pulse may be irregular, fast, slow or normal, strong or weak.
- Skin may be pale, cold and sweaty – shock is occurring.
- Nausea or vomiting may occur.
- Medication does not relieve the pain.

Treatment:

Follow the Basic First Aid Plan to assess the casualty

- ✓ Call 000 or (112 mobile) for an Ambulance
- ✓ Reassure casualty
- ✓ Rest casualty in a semi-sitting position unless they are feeling faint
- ✓ Casualty should administer own medication
- ✓ Monitor vital signs
- ✓ Current medical opinion states that whilst waiting for the ambulance the casualty may elect to chew one aspirin tablet (300mg), if they are not allergic to aspirin. This may help diminish the amount of damage to the heart muscle. The ambulance officers will administer aspirin if the casualty has not taken aspirin prior to their arrival.

If the casualty does not receive urgent medical help, they could die

Angina Pectoris

The narrowing or blockage of the arteries can cause angina. When a partial blockage occurs, there is a reduction of oxygenated blood reaching the heart muscle called the Myocardium, therefore causing pain in the heart muscle.

When an Angina attack occurs there is no major damage to the heart muscle. Most casualties' know and understand their problem and carry their own medication.

Types of medication:

Tablet: *usually called Anginine, the tablet is placed under the tongue.*

Puffer form: *Nitro lingual spray, sprayed under the tongue.*

These medications cause the Coronary arteries to widen, allowing more oxygenated blood to reach the Myocardium (or heart muscle).

Signs and Symptoms may include:

- Pulse may be irregular, fast, slow or normal.
- Pain may radiate to arms, neck or jaw.
- Constant and tense to heavy pain in the chest.
- Casualty may be short of breath.
- Pain occurs on exertion.
- Skin may be clammy, cold and pale (shock).
- Pain is relieved by rest or medication.

Treatment:

Follow the Basic First Aid Plan to assess the casualty

- Sit the casualty down.
- Allow casualty to take their own medication.
- Pain is relieved by rest and medication.

Due to a drop in blood pressure, these medications may cause the casualty to faint.

If pain continues call for an Ambulance

Choking

Choking is the obstruction of the airway

Causes of Choking

Obstruction of the airway can be caused by

- Food
- Swallowing foreign objects
- Laughing or crying while eating or drinking
- Running while eating or drinking
- Swallowing food when not chewed enough
- Breathing in while eating or drinking
- Swallowing bone splinters

Signs may include

- Coughing
- Difficulties in breathing
- Face, neck, lips, ears, fingernails turning blue.
- Clutching the throat.
- Unconscious and not breathing.

Treatment of a partial obstruction

Follow the Basic First Aid Plan to assess the casualty

- Encourage the casualty to relax and take deep breaths.
- Encourage the casualty to try and cough up the obstruction.
- Bend the casualty forward at the waist, to assist with dislodging the obstruction.
- Call an Ambulance immediately if the obstruction is not expelled.

DO NOT:

✗ Attempt to dislodge the obstruction with your fingers as this could push the obstruction further down the airway.

✗ Use the Heimlich Manoeuvre as this can damage the internal organs.

Treatment of a complete obstruction

Follow the Basic First Aid Plan to assess the casualty

A complete obstruction is diagnosed by a casualty not being able to breathe, speak or make any sounds.
This can also be recognised as a hand gripping around the throat.

✓ Lean the casualty forward and bend them over at the waist.

✓ Give up to five (5) hard blows between the shoulder blades, pausing between each blow to see if the obstruction has been dislodged.

If an Ambulance is required - call immediately - do not delay

- ✓ If the airway is still blocked, give five (5) chest thrusts to the middle of the chest the same as performing chest compressions to try and expel the obstruction, checking after each thrust. This should be done against a hard surface.
- ✓ If the casualty becomes unconscious, perform CPR and call for an Ambulance immediately.

Treatment of an obstruction in an infant or child

Follow the Basic First Aid Plan to assess the casualty

- ✓ An infant can be positioned over your knee while you are in the sitting position. This will allow gravity to assist in expelling the object.
- ✓ With the infant on your knees, supporting the neck and head, give up to five (5) slaps between their shoulder blades, checking between each back slap to see if the obstruction has been expelled.
- ✓ If the airway is still blocked, give up to five (5) chest thrusts to the middle of the chest the same as performing chest compressions but using two fingers on an infant, to try and expel the obstruction, checking after each thrust.

✖ **Do not hold an infant by their legs, as this can pull the infants legs out of the sockets.**

Treatment of an obstruction when alone

- ✓ Rock forcibly backwards against a wall ensuring you do not hit your head. If this doesn't work then place your abdomen over the back of a chair and force downwards to expel the obstruction .

11 Asthma

Asthma is a reversible breathing problem caused from sudden or progressive narrowing and spasming of the smaller airways and includes mucus production, which interferes with oxygen exchange. People who suffer from asthma have sensitive airways. When exposed to certain triggers, their airways narrow, making it hard for them to breathe.

There are two main factors that can cause the airways to become narrowed:

1. The inside of the lining of the airways becomes red, swollen and inflamed, and mucus may be produced.
2. The muscles surrounding the airways constrict.

Why do asthmatics get asthma in the first place?

Asthma cannot be cured but it can be managed. Good asthma management can lead to a productive lifestyle. The causes of asthma are not fully understood, but there can be a family history of hay fever, asthma, or eczema. Asthma can appear at any age and can affect all walks of life.

Precautions to take to help prevent asthma attacks:

If a person knows the triggers to their asthma attacks, they can take a few precautions to help reduce the risk of an attack.

1. If chemicals are a trigger to an attack - either use PPE's (Personal Protective Equipment) or change the chemicals if possible.
2. If exercise or activity are a trigger - take 2 puffs of reliever medication 5 – 10 minutes before beginning the activity. Remembering to warm up before activity and to cool down after the activity.
3. If dust and/or dust mites are a trigger – remove all carpet from the area.

Risk Management strategies

Risk management strategies will be included in the organisation's asthma policy

- An organisation's emergency asthma management plan
- Emergency first aid management and protocols for asthma
- Person's asthma management plan developed by their healthcare provider

Signs leading up to an asthma attack:

Asthma sufferers can often show signs days before an asthma attack can occur. This can provide an opportunity to identify that a person's asthma is worsening or that they are at risk of suffering a major attack.

These signs could be:

- Reduced ability to do usual activities.
- Need to use their blue reliever puffer more than 3 times a week to manage asthma symptoms.
- Likely to be tired, lethargic, irritable and/or have lack of concentration.
- Behaviour changes

Triggers of an Asthma attack

- Colds and flu
- Animal hair and dander
- Changes in temperature
- Chemicals, perfume scents
- Exercise – (can be managed)
- Dust Mites
- Alcohol or some soft drinks
- Some preservatives
- Some foods
- Pollens, mould and grasses
- Cigarette Smoke
- Certain Drugs
- Some Occupational hazards

Asthma symptoms vary from person to person. Some sufferers may present with all the symptoms, while others may only have a wheeze or cough.

Signs and Symptoms may include:

- Moderate to severe breathing difficulties
- Shortness of breath – fast shallow breathing
- Wheezing – a high pitched sound when exhaling
- Tight chest – the chest wall is not expanding normally
- Coughing – usually occurs at night or in cold conditions
- Paleness, sweaty, blueness of lips, fingertips, or earlobes
- Quiet and subdued
- Possibly unconscious

Asthma severity classifications:

Mild Asthma:
- ✓ Soft wheeze
- ✓ Minor breathing difficulties
- ✓ Cough
- ✓ Casualty speaks in sentences

Moderate Asthma:
- ✓ Loud wheeze
- ✓ Increasing breathing difficulties
- ✓ Persistent cough
- ✓ Casualty speaks in phrases

Severe Asthma:
- ✓ Wheeze may not be heard
- ✓ Extreme difficulty in breathing or gasping for breath
- ✓ Distressed and anxious – may be hyperventilating
- ✓ Casualty speaks in single words only
- ✓ Pale and sweaty
- ✓ Blue lips and earlobes

Asthma medications:

Relievers
Preventers
Symptom Controllers
Combination Medications

Asthma

Reliever Puffers:

✓ Usually blue or blue/grey in colour
- Ventolin
- Asmol
- Bricanyl
- Airomir
- Epaq
- Atrovent (white case with green lid)

✓ These are bronchodilators. They relax the muscles around the airway to relieve symptoms of shortness of breath, coughing, chest tightness and wheezing
✓ Works within 4 minutes
✓ Can be used to reduce the risk of exercise induced asthma (EIA)
✓ Is safe and not-addictive. A person experiencing the signs of asthma can be administered large quantities of blue reliever medication safely

Blue reliever medication (Salbutamol) is the only medication that should be used by or administered to someone displaying the signs of worsening asthma or an asthma attack. Therefore it is the only medication that should be used in a first aid or emergency situation.

When receiving high dosed of a blue reliever, a person may expect to feel jittery have shaky hands etc. This is a normal response to the medication.

Preventer Puffers:

- Usually Autumn colours – brown, yellow, orange, rust

✓ Reduces and controls inflammation of the bronchial tubes
✓ Makes the airways less sensitive to triggers
✓ Dries up mucus
✓ Can take up to 4 weeks to take effect
✓ Reduces the severity and frequency of asthma attacks

Symptom Controllers:

- Green or light blue in colour

✓ Long acting relievers
✓ Reduces bronchospasms for up to 12 hours

Combination Medications:

- Purple, or red & white in colour

✓ Combination of preventer and system controllers
✓ Reduces bronchospasms

If an Ambulance is required - call immediately - do not delay

Delivery Devices

Metered Dose Inhalers (MDI's):

- Metered dose inhalers have plastic cases in the shape of an "L" and a metal canister inserted into it. Medication is delivered at a high speed

How to use a metered dose inhaler without spacer

1) Remove cap from the mouthpiece of the inhaler
2) Hold inhaler upright and shake
3) Breathe out
4) Tilt your head back
5) Place the puffer in mouth and seal with lips
6) Breathe in deeply through the inhaler, while pressing down on the inhaler
7) Remove puffer from mouth, close mouth and hold breath for up to 10 seconds
8) Breathe out slowly through the nose
9) Replace the cap on the inhaler

✓ If further doses are required, repeat the above steps
✓ The casualty should have 4 normal breaths between each firing of the inhaler
✓ If using a metered dose inhaler for preventer medication, take the correct dosage as prescribed by your doctor

How to use a metered dose inhaler with spacer

1) Remove cap from the mouthpiece of the inhaler
2) Place the inhaler into the spacer
3) Hold inhaler upright and shake
4) Breathe out
5) Tilt your head back
6) Place the spacer into the mouth and seal with lips
7) Press down on the inhaler
8) Breathe in deeply through the spacer holding your breath for up to 10 seconds or as long as comfortable. You do this for 4 breaths
9) Remove spacer from mouth
10) Replace the cap on the inhaler

✓ If further doses are required, repeat the above steps
✓ The casualty should have 4 normal breaths between each firing of the inhaler
✓ If using a metered dose inhaler for preventer medication, take the correct dosage as prescribed by your doctor

Asthma

How to use a Turbuhaler:

1) Unscrew the cover and remove it
2) Hold the Turbuhaler upright
3) To load the medication, twist the base to the right and back to the left. You will hear it click
4) Breathe out, away from the Turbuhaler
5) Place the Turbuhaler in your mouth and seal with lips
6) Breathe in deeply through the Turbuhaler for up to 5 seconds
7) Remove Turbuhaler from mouth and hold breath for up to 10 seconds
8) Breathe out slowly through the nose away from the Turbuhaler

✓ If further doses are required, repeat the above steps
✓ The casualty should have 4 normal breaths between each firing of the inhaler
✓ If using a metered dose inhaler for preventer medication, take the correct dosage as prescribed by your doctor

Treatment

Follow the casualties own asthma management plan

If the casualty does not have an asthma management plan then follow the 4x4x4 asthma management plan

The four step asthma management plan

Step 1:
✓ Sit the person down. NEVER LAY AN ASTHMATIC DOWN WHO IS HAVING AN ATTACK
✓ Remain calm
✓ Provide reassurance. Encourage slow breathing
✓ Do not leave the casualty alone

Step 2:
✓ Give 4 puffs of a blue reliever inhaler
✓ One puff at a time through a spacer
✓ Ask the casualty to take 4 breaths from the spacer after each puff
✓ Shake puffer after each firing
✓ If no spacer is available, use a blue reliever inhaler on its own

Step 3:
✓ Wait 4 minutes

Step 4:
✓ If there is little or no improvement, repeat steps 2 and 3
✓ If there is still little or no improvement, call for an Ambulance immediately

If an Ambulance is required - call immediately - do not delay

- ✓ While waiting for the ambulance have 4 puffs of reliever medication every 4 minutes until the ambulance arrives.
- ✓ In a severe attack the adult dose may be exceeded to 6 to 8 puffs every 5 minutes. This reliever medication works by increasing the size of the airways by reducing inflammation, which helps the casualty to breathe more easily and recover from the attack.
- ✓ Children can deteriorate rapidly – beware of the ASTHMATIC CHILD.
- ✓ If an asthmatic is not able to talk, they are in a life-threatening situation. Call 000 immediately.
- ✓ Asthma attacks can be frightening. Reassure the casualty.

Spacers:

Using a spacer with an inhaler is more effective than using an inhaler by itself as:

- ✓ Four times more medication reaches the lungs than when using an inhaler alone
- ✓ When using an inhaler alone, approximately 10% of medication reaches the lungs, when using an inhaler and spacer, 40% reaches the lungs
- ✓ It reduces side effects of medications as more medication is deposited into the lungs
- ✓ It makes inhaler medications easier to take than using the puffer alone and enables a first aider to assist in administering medication when necessary

National Asthma Foundation recommends that all people with asthma use a spacer to take their inhaler medications

Cleaning of a spacers:

Before using a plastic spacer for the first time, you need to:

- ✓ Wash in warm soapy water
- ✓ Allow to air dry
- ✓ Do not rinse or wipe dry

Due to health regulations, the National Asthma Foundation now recommends the use of disposable spacers in an organisations Asthma Emergency First Aid Kit.

For more information on Asthma, and Asthma management please contact:

Asthma NSW on www.asthmansw.org.au 02 99063233

OR

Asthma Australia on www.asthmaaustralia.org.au 03 96967861

If an Ambulance is required - call immediately - do not delay

Drowning

PREVENTION is the best treatment

- ✓ Learn how to swim
- ✓ Know boating and swimming pool safety rules
- ✓ Know basic life saving rescue and CPR

Signs and Symptoms may include

- No breathing
- Possibly no pulse
- Blue face and lips
- Possibly a fine foamy froth from the mouth and nose

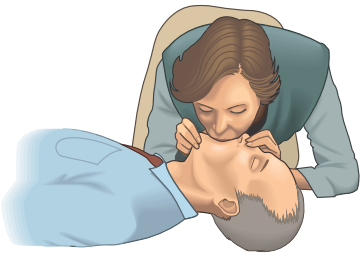
Treatment

Follow the Basic First Aid Plan to assess the casualty

Never become a casualty yourself – never attempt a rescue beyond your capabilities.

Consider using a floatation device for the casualty to cling to. This may calm them down and stop them from panicking and injuring or drowning the rescuer

- ✓ Begin mouth to nose rescue breaths in the water if possible, while wading to shore. If in deep water use a flotation aid. DO NOT attempt rescue breaths if there is danger to yourself.
- ✓ Once ashore – check and clear the airway.
- ✓ Seek medical aid immediately.
- ✓ Commence CPR
- ✓ Once breathing commences, place the casualty onto their side. Keep warm and continually monitor observations until medical aid arrives.



NOTE: Even if the casualty is resuscitated successfully, they still need to seek medical aid.

Hyperventilation or Over-Breathing

This condition is when the rate and depth of breathing are greater than required to maintain normal levels of carbon dioxide in the blood.

Causes Stress-related Deliberate over-breathing

Signs and Symptoms may include:

- Anxiousness
- Normal skin colour
- Chest pain may be present.
- The hand or wrist can clench and fingers can twist
- Shortness of breath – choking.
- Light headedness
- A feeling of not getting enough air
- Tingling in the fingers, lips and / or feet.

Treatment:

✓ Calm, assertive reassurance to the casualty.

✓ Encourage casualty to breathe deeply through the nose and exhale through the mouth.

Hanging:

Treatment:

- ✓ Grasp the casualty's legs and take the body weight.
- ✓ Free the neck of the noose or cut the noose.
- ✓ Follow the Basic First Aid Plan - ABC.
- ✓ Seek immediate medical attention.

Strangulation:

Treatment:

- ✓ Remove any material obstructing or constricting the throat.
- ✓ Follow the Basic First Aid Plan - ABC.
- ✓ Seek immediate medical attention.

Emphysema:

What is Emphysema?

- Progressive chronic airways disease.
- Chronic irritant caused lung condition.
- Casualty can suffer from other lung conditions.

Signs and symptoms may include:

- Moderate to severe breathing difficulties.
- Coughing
- Blue lips

Treatment:

- ✓ Assist casualty with their medication and / or oxygen.
- ✓ Seek medical aid if there is no improvement.

11 Anaphylaxis

Anaphylaxis and Severe Allergic Reactions:

Anaphylaxis is a sudden and severe allergic reaction, and is caused by contact to an allergen such as food, medicines or an insect bite. Although death is rare, anaphylaxis requires emergency treatment. Anaphylaxis can be influenced by exercise, heat, and the amount of food eaten and digested.

Allergens causing anaphylaxis (but not limited to):

- **Foods:** peanuts and nuts, shellfish and fish, milk, yeast and eggs
- **Insect bites:** bees, wasps, jumping jack ants, red fire ants
- **Medication:** penicillin, aspirin, codeine, antibiotics, morphine
- **Latex:** gloves, party balloons, swimming hats, goggles, condoms

Signs and Symptoms may include:

Mild to Moderate Reaction:

- Swelling of lips, face, or eyes
- Hives, welts or a rash
- Nausea
- Feeling of being unwell
- Abdominal pain
- Itchiness

Severe Allergic Reaction:

- Difficulty in breathing
- Swelling and tightness of the throat
- Tongue may swell
- Unconsciousness
- Noisy breathing – wheeze or cough. The same as Asthma attack
- Pale, cold, clammy skin – shock
- Difficulty in talking

Mild to moderate reaction:

✓ If casualty's action plan is available, follow the plan
✓ If stung by an insect, remove the stinger (except ticks)
✓ If casualty has medication prescribed, e.g. antihistamine tablets, cream or eye drops, hand them to the casualty for administration.
✓ If casualty need's to use an asthma reliever puffer, follow the 4x4x4 asthma management plan
✓ If airway or lips are swollen, apply a cold compress to help reduce the swelling
✓ Next of kin or guardian should be contacted

- Continue to monitor the casualty's condition
- A casualty can have a secondary reaction, sometimes worse after the initial reaction has occurred
- If the casualty's condition deteriorates call for an Ambulance and administer an Adrenaline auto-injector if one is available

If an Ambulance is required - call immediately - do not delay

Anaphylaxis

Anaphylaxis:

- ✓ If the casualty's action management plan is available follow the plan
- ✓ If the casualty's action management plan is unavailable, follow ASCIA's Management plan
- ✓ Administer the Adrenaline auto-injector
- ✓ Call for an Ambulance immediately. This condition is life-threatening
- ✓ Lay the casualty flat
- ✓ If the casualty is having breathing difficulties, allow them to sit up. DO NOT ALLOW THE CASUALTY TO STAND
- ✓ If swelling of the neck occurs, apply a cold compress or ice pack to help reduce the swelling
- ✓ Contact next of kin or guardian

- ***When you call for an Ambulance ensure that you tell them that an Adrenaline auto-injector has been administered***
- ***The Adrenaline auto-injector does not treat the reaction, it keeps the body's systems working until medical treatment is administered***

Monitor casualty's condition:

- ✓ After 5 minutes, if there is no change in the casualty's condition or the casualty's condition deteriorates, and a second Adrenaline auto-injector is available, another dose may be administered

Unsure whether to administer Adrenaline Auto-injector:

- ✓ Adrenaline is life saving, and must be administered immediately
- ✓ By not administering an Adrenaline auto-injector, the casualty's condition will deteriorate and the casualty can die
- ✓ If the casualty is in cardiac arrest, administer the Adrenaline auto-injector first, and then commence CPR

Adrenaline Auto-injectors:

Adrenaline auto-injectors are only to be used in an anaphylactic reaction. The Adrenaline (epinephrine) auto-injector:

- ✓ Shrinks the abnormally wide blood vessels
- ✓ Makes the heart beat stronger, improving the low blood pressure
- ✓ Relaxes the lungs, easing the casualty's breathing and wheezing
- ✓ Helps stop the swelling of the mouth, tongue and lips
- ✓ Helps stop itchiness, rashes and welts

- Adrenaline auto-injectors have a spring activated needle
- Administers a pre-measured dose of adrenaline
- Is single use only

Anaphylaxis

There are 2 brands of Adrenaline auto-injector.

- Epi-Pen
- Anapen

- **Before using an Adrenaline auto-injector, you should**

✓ Check the expiry date on the auto-injector
✓ Check the auto-injector has not been fired
✓ Check the colour of the liquid in the viewing window

- **When it is not recommended to use an Adrenaline auto-injector:**

✗ If the auto-injector is out of date
✗ If the liquid is cloudy or not clear in colour
✗ You can see sediment floating in the liquid through the viewing window
✗ If the auto-injector has been fired
✗ If the auto-injector has been stored in bright light
✗ If the auto-injector has been stored in the fridge or freezer

- ***Possible side effects may include:***

✓ Increased heart rate
✓ Difficulty in breathing
✓ Shortness of breath
✓ Dizziness
✓ Weakness
✓ Tremors
✓ Headache
✓ Restlessness or anxiety

These side effects may not occur. If they do occur, they are usually only minor and affect the casualty for a short period of time.

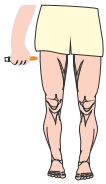
How to administer an Anapen

1. Pull off black needle shield
2. Pull off grey safety cap from red end and place needle end against outer thigh.
3. Press red button so it clicks
4. Hold for at least 3 seconds. Remove Anapen and do not touch needle.

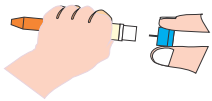
How to administer an EpiPen or EpiPen Jr:

A casualty who has been diagnosed with suffering from Anaphylaxis, should always carry around their own medication, to be administered if required.

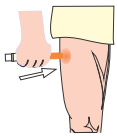
Step 1: Form a fist around the EpiPen, place the needle end of the EpiPen against the fleshy part of the outer thigh. The needle will penetrate through jeans but bare skin is the recommended way.



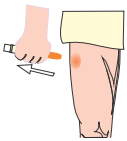
Step 2: Pull off the safety cap.



Step 3: Push the EpiPen hard against the leg until you hear a click. Hold the EpiPen in place for at least 3 seconds.



Step 4: Remove the EpiPen from the thigh, being careful not to touch the needle. Discard the EpiPen safely in a sharps container.



CALL FOR AN AMBULANCE IMMEDIATELY:

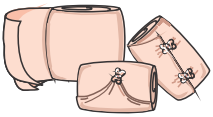
Tell the operator that the casualty is having an anaphylactic reaction & that an Epi-Pen has been administered.

More information can be found at: www.allergy.org.au

Bandages and Slings

Types of bandages:

- Crepe bandages – used for sprains, fractures & pressure bandage.
- Conforming bandages – used for holding dressings in place.



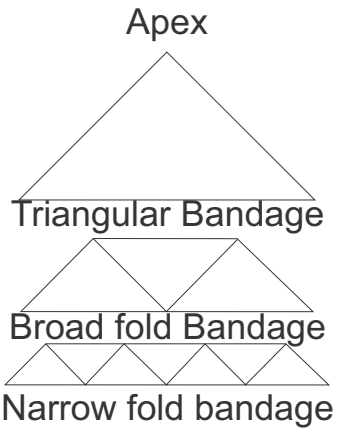
How to use a roller bandage:

- ✓ With the tail of the bandage, place it over the limb and roll up and continue to unwind the bandage over the limb.
- ✓ Overlap the bandage each time.
- ✓ Secure the bandage end with tape or tuck the end into the bandage.
- ✓ Check the colour of the skin after bandaging. Loosen bandage if discolouration has occurred or the casualty complains of increased pain because of the bandage.
- ✓ When applying the bandage, ask the casualty if the bandage is too tight. Check the extremities for colour & warmth.

How to fold a triangular bandage:

Triangular bandages are used for slings, pads or bandaging.

- Fold the triangular bandage in half, and this makes a broad fold bandage.
- Fold the triangular bandage in half again and this is called a narrow fold bandage.



Slings are used for:

- Supporting an injured arm or wrist.
- Immobilising fractures.
- Elevating to control external bleeding.

What can be used as a sling?

- Shirts
- Jumper
- Belts
- Rope
- Material

How to apply an Upper Arm sling:

This sling is used for injuries to the upper arm, including the collarbone, shoulder or ribs, add an additional narrow bandage.

- ✓ Position the arm across the body with the hand near the opposite shoulder.
- ✓ Place the triangular bandage under the arm with the apex at the elbow.

- ✓ Fold the lower half of the bandage over the arm.
- ✓ Twist the bandage firmly at the elbow and bring the twisted bandage around the back .
- ✓ Twist the bandage around the hand and over the uninjured shoulder and tie the ends together using a reef knot on opposite side of the injury and place a pad under the knot.
- ✓ Check the bandaged arm for circulation.

How to apply a Lower Arm sling:

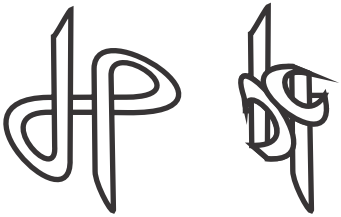
This sling is used for injuries to the lower arm, including the wrist and hand.

- ✓ Place the arm across the chest and slightly raised.
- ✓ Place the triangular bandage between the arm and the body with the apex pointing towards the injured elbow.
- ✓ Bring the lower half of the bandage up and over the injured arm.
- ✓ Tie the ends together with a reef knot on the uninjured side & place a pad under the knot.
- ✓ Tape, tie or pin at the elbow.
- ✓ Check the injured arm for circulation.
- ✓ Ensure the arm is not sloping downwards as this will increase swelling and pressure.

How to apply a Collar and Cuff sling:

This sling can be used for a dislocated shoulder, fractured ribs, or a fracture of the upper arm.

- ✓ Make a clove hitch (dp) using a narrow fold bandage.
- ✓ Put the loops over the wrist of the injured arm.
- ✓ Gently elevate the injured arm against the casualty's chest.
- ✓ Tie the bandage ends together around the neck on the uninjured side using a reef knot, place a pad under the knot.
- ✓ For extra support apply a broad bandage below the fracture site over the arm & around the body.



Fractures

What is a fracture?

A fracture is the breaking of a bone or cartilage, and is usually accompanied by soft tissue injury, pain and swelling in the surrounding area.

Types of Fractures

Open or Compound Fracture

- Where the bone protrudes through the skin, bleeding can be profuse, possible risk of infection.

Closed or Simple Fracture

- The skin stays intact, bleeding occurs into the tissues.

Complicated Fracture

- Vital organs are damaged.
  eg. Fractured ribs can puncture the lungs.

Causes of a fracture

Direct force – a blow that breaks the bone at the point of impact,
eg. A rock falls on an arm; a steering wheel hits the rib cage.

Indirect force – the bone breaks a distance away from the point of impact.
eg. You fall on your outstretched hand and break your upper arm.

Abnormal Muscular Contraction – a sudden contraction of a muscle may result in a fracture.
eg. An elderly man fractures his hip after tripping while trying to stop himself from falling

Signs and Symptoms may include:

- You may hear the break when a person falls.
- Casualty may feel the bone break.
- Pain at or near the injury site.
- Deformity – the limb could be positioned at the wrong angle.
- One limb seems shorter than the other limb.
- The limb has a loss of power.
- Bruising
- Tenderness and swelling
- Increase in pain as swelling increases.

If an Ambulance is required - call immediately - do not delay

Treatment for all fractures:

Follow the Basic First Aid Plan to assess the casualty

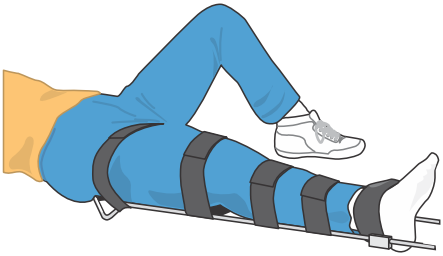
- ✓ Control bleeding – cover wound with a dressing and bandage.
- ✓ Prevent movement – support injured limb with pillows or blankets.
- ✓ Treat for shock.
- ✓ Reassure casualty.
- ✓ Check circulation.
- ✓ Use an ice pack to help reduce swelling.

If medical aid is delayed or the casualty has to be moved

- ✓ Carefully splint the wound.
- ✓ Immobilise the fracture using broad bandages.
- ✓ Secure above and below the fracture site.

What can be used for splinting?

- Towels
- Newspapers
- Branches
- Pieces of timber
- The body



Note:

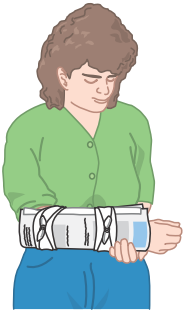
- Make sure splints are padded.
- Use broad bandages to splint the legs together.

Splinting a fractured upper arm:

- ✓ Apply an upper arm sling.
- ✓ If required apply a broad bandage above and below the fracture around the body bandaging the casualty's arm to the body for support.
- ✓ Check for circulation in the injured limb.

Splinting a fractured lower arm:

- ✓ Place a padded splint under the lower arm and hand. Tie on the splint with narrow folded bandages or roller bandages above and below the fracture. Place arm in a lower arm sling to support the limb. If no splint is available, you could use a newspaper, clothing or support the arm with the other arm.
- ✓ Check for circulation in the injured limb.



Fractures

Splinting a fractured wrist, hand, and fingers:

- ✓ Place a padded splint under the lower arm and hand. Secure the splint with narrow folded bandages or roller bandages below the elbow, above the wrist and over the hand. Place arm in a lower arm sling to support the limb.
- ✓ If fingers are broken tape injured finger to the adjacent finger with padding between them.
- ✓ Check for circulation in the injured limb.

Splinting a fractured thigh:

- ✓ Place padding like a towel or clothing between the legs from the thigh to the ankles. Bring the uninjured limb to the injured limb. Apply a figure of eight bandage around the ankles and the feet. Apply a broad bandage around the knees & below the fracture site.

Splinting a fractured leg:

- ✓ Place padding between legs. Bring uninjured limb to injured limb. Apply a figure of eight bandage around the feet and ankles. Apply a broad bandage around the knees.

Treatment of a fractured ankle:

Follow the Basic First Aid Plan to assess the casualty

If no deformity is present

- **R**est
- **I**ce
- **C**ompression
- **E**levate
- **R**efer to medical aid

- ✓ Avoid weight bearing.
- ✗ Do not remove the shoe.

If deformity is present

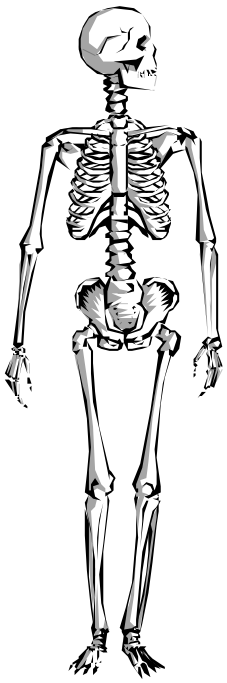
- ✓ Support the ankle on pillows or blankets.
- ✗ DO NOT APPLY BANDAGES TO THE ANKLE.

RICER

If an Ambulance is required - call immediately - do not delay

Treatment of a fractured foot or toes:

- ✓ Elevate the limb.
- ✓ If not wearing shoes apply a compression bandage.
- ✗ If wearing a shoe, do not take it off unless there are signs of swelling or an open wound.



Treatment of a fractured pelvis:

- ✓ If casualty is conscious, place casualty onto their back with their knees slightly bent, supported with pillows or a folded blanket.
- ✓ Loosen belts & pants.
- ✓ Have them empty their pockets.
- ✓ If required treat casualty as though there are fractures of the upper legs or spine.
- ✓ Immobilise legs.

Treatment of a Fractured Collarbone:

- ✓ Support the injured arm in an upper arm sling.
- ✓ Check for bleeding.
- ✓ Rest
- ✓ Seek medical aid.

Treatment of a Fractured Kneecap:

- ✓ Place casualty onto their back with their head and shoulders supported.
- ✓ Raise and support the leg in a comfortable position.
- ✗ DO NOT TRY AND STRAIGHTEN LEG.
- ✓ If the limb needs to be splinted and without discomfort.
    - ✓ Apply a figure of eight bandage around the kneecap.
    - ✓ Apply a padded splint from the thigh to the heel.
    - ✓ Apply a figure of eight bandage around the ankle and foot and splint.
    - ✓ Apply a broad bandage around the thigh and lower leg.
    - ✓ Support and elevate the leg.
- ✓ Check pulse and the colour of the skin.

Fractured Jaw:

A fractured lower jaw may be life threatening as it may cause an obstruction to the airway, particularly if the casualty becomes unconscious.

A fractured jaw can result from a hard or heavy blow to the jaw. Because of the shape of the jaw, a blow to one side of the jaw may cause the other side to become fractured. A blow to the front of the jaw may cause fractures on both sides.

NOTE: Yawning or a blow to the jaw may cause dislocation.

Treatment of a Conscious Casualty:

✗ DO NOT apply a bandage.
✓ Allow the casualty to sit in the most comfortable position, usually sitting up and leaning forward.
✓ Place a soft pad on the jaw and allow the casualty to support the jaw with their hands.

Treatment of an Unconscious Casualty or casualty with a threatened airway:

✓ Roll casualty into the lateral position.
✓ It may be necessary to pull the lower jaw forward and hold the tongue forward with a cloth.
✓ Seek medical help.

Dislocations

Dislocation is a bone that has been removed from a joint. This can happen spontaneously or from trauma and may have associated fractures.

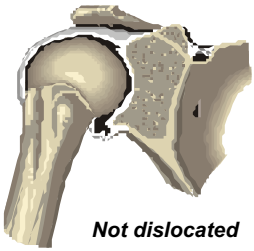
Signs and Symptoms

- Pain
- Inability to move
- Deformity
- Tenderness over joint.
- Swelling and discolouration around the joint occurs rapidly.

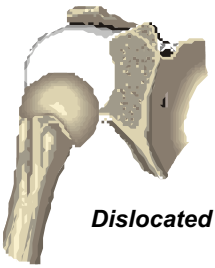
Treatment

Follow the Basic First Aid Plan to assess the casualty

✓ Check for circulation in the injured limb.
✗ DO NOT TRY TO PUT THE DISLOCATION BACK IN PLACE.
✓ Splint or sling injured part if possible.
✓ Consider applying bulky padding over the site.
✓ Apply cold pack to reduce swelling, elevate injured part if possible.
✓ Seek medical aid.



Not dislocated



Dislocated

Bruising, Sprains and Strains

Bruising:

- Caused by a fall or a hard or heavy blow.
- Bleeding into the deep tissues occurs.

Sprain:

- Occurs when a joint goes beyond its normal range of movement.
- Bleeding into the tissues occurs.

Strain:

- Occurs when a muscle or a group of muscles are over stretched.

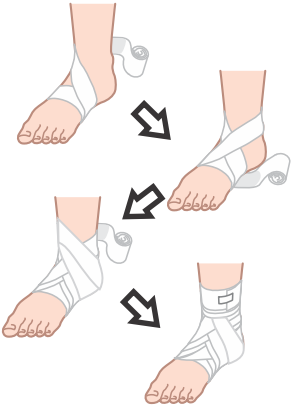
Signs and Symptoms may include:

- Pain and tenderness
- Swelling
- Cannot weight bear.
- Discolouration
- Loss of movement around the injury.

Treatment

Follow the Basic First Aid Plan to assess the casualty

- ✓ **R**est and support the injured limb.
- ✓ **I**ce pack or cold compress to reduce swelling and to aid in healing. Up to 20 minutes.
- ✓ **C**ompression bandage is applied for support.
- ✓ **E**levate the limb to reduce any further swelling.
- ✓ **R**efer injury to a doctor.



How to Apply an ice pack

Every alternative 20 minutes for the first 2 hours.

Then

20 minutes every 2 hours for the next 48 hours.

- ✗ Do not place ice directly onto the skin. It can damage the skin. Wrap it in a wet towel.
- ✗ Do not apply heat.

COLD PACK

DO NOT apply directly to skin

If an Ambulance is required - call immediately - do not delay

Burns

When the skin is burned, the small blood vessels underneath the skin leak body fluid. This leaking fluid is forced into the tissues and forms blisters, or the fluid can leak through the skin. Burns, which effect large areas of the body, causes an excessive loss of body fluids causing shock.
With burns which occur on the limbs, the body fluid accumulates in the tissues causing swelling and an increase in pain.
Burns to the face, neck and chest area will cause breathing difficulties.

Signs and Symptoms may include:

Partial Thickness Burns:

- Reddened skin
- Blisters
- Swelling
- Peeling skin around burnt area
- Very painful

Full Thickness Burns

- Deep tissue burns
- Skin may look white
- Skin may look black and charred
- Body fluid loss
- Shock
- Relatively painless due to nerve damage
- Pain may occur around the edges of the burn
- Dehydration

Causes of burns

Fire:

In the case of fire remember the following: Danger from Fire and smoke Fumes given off from plastic materials, furnishings, paint. Cover your mouth and nose with a wet cloth, Crouch low and crawl out (GO GO GO).

Facial, Neck and Airway (Inhalation) Burns:

Maintain an open airway by giving small sips of cool water and place cold compress around the neck and throat and seek medical aid.

Bitumen and plastic burns:

Do not remove from the skin unless it is obstructing the airway and cool running water minimum 30 minutes.

Electrical and Lightning Burns

Beware of danger. While the surface of the skin may look undamaged, deep tissue burns may have occurred.

Chemical Burns:

Check MSDS or ring poison's information on 131126.

Treatment for Burns:

Follow the Basic First Aid Plan to assess the casualty

- ✓ Watch for danger.
- ✓ Remove casualty from danger if safe to do so.
- ✓ Put out any flames - stop - drop & roll.
- ✓ Cool the burn by placing the burnt area under gently running cold water for up to 20 minutes.
- ✓ Remove constrictive jewelery and clothing if not stuck.
- ✓ Cover the burn loosely with a clean sterile non stick dressing, non fluffy sheet or material, plastic wrap.
- ✓ If possible elevate the burnt area.
- ✓ If pain persists, continue to cool with cold water.
- ✓ Call for assistance immediately.
- ✓ Monitor Airway and Breathing.

When to seek medical aid:

- ✓ When a partial thickness burn, which may have associated blisters, is larger than a 20 cent piece.
- ✓ Full thickness burns.
- ✓ Burns involving the face, hands, airway, chest, or genital area.
- ✓ Burns affecting a large area of the body, particularly in the elderly, small children and babies.
- ✓ Not sure how bad the burn is?

DO NOT

- ✗ Place yourself in danger when attempting a rescue. Please apply caution and common sense.
- ✗ Remove clothing, footwear, or jewellery which is stuck to the skin.
- ✗ Break blisters, this causes the risk of infection.
- ✗ Use adhesive plaster.
- ✗ Apply fats, oils, butter, lotions or cream.
- ✗ Underestimate the extent of the burns especially burns involving the airway.
- ✗ Use cotton wool, towels, fluffy material, blankets, or plastic adhesives.
- ✗ Over cool the casualty – shivering is a sign.
- ✗ Give alcohol or tobacco.

Remember: - Shock can occur quickly!

Bleeding

Bleeding is the loss of blood from the blood vessels. Severe or continued bleeding can lead to death. You as a first aider must control the bleeding. Blood consists of red and white cells, platelets that assist with clotting, and plasma, which is the fluid component of blood. The blood is circulated around the body by our heart, which is under constant pressure.

- **An adults body** contains 6 litres of blood – an adult can lose ½ litre of blood without harm.
- **A child's body** contains 2 ½ litres of blood.
- **An infant's body** contains 750mls of blood. A loss of 300mls can cause death.

Remember: **BLEEDING CAN CAUSE SHOCK AND DEATH. ACT IMMEDIATELY.**

Internal Bleeding:

Visible Signs of Internal Bleeding

Bleeding from the:

Lungs	→	Cough up bright red blood.
Stomach	→	Vomit
Bowel	→	Up dark coffee coloured blood.
Kidney	→	Dark loose smelly stools.
Vaginal	→	Pink Urine

Signs and Symptoms may include:

- Pale, cold, clammy skin (shock).
- Pale tongue and inside of the mouth.
- Rapid gasping breathing.
- Rapid weak pulse.
- Nausea and / or vomiting – vomit may be the colour of coffee grounds.
- Weakness, faintness or dizziness.
- Pain, tenderness, rigidity.
- Casualty may pass blood in their urine or faeces.
- Casualty may cough up bright frothy red blood.
- Decrease in consciousness.

Treatment

Follow the Basic First Aid Plan to assess the casualty.

- ✓ Lay casualty flat to minimise shock.
- ✓ Apply pressure to control bleeding.
- ✓ Reassure and place in a comfortable position.

If an Ambulance is required - call immediately - do not delay

- ✓ If casualty is unconscious, place in the lateral position.
- ✓ If coughing up blood, place casualty in a semi sitting position (if the casualty is dizzy or semi conscious place them in the lateral position).
- ✓ Remove constrictive clothing.
- ✓ Monitor and record vital signs.
- ✓ Give nil by mouth.
- ✓ Seek medical assistance immediately.

Bleeding Externally:

Always wear gloves

Treatment

Follow the Basic First Aid Plan to assess the casualty.

- ✓ Reassure the casualty.
- ✓ Apply direct pressure to the wound using a gloved hand or try and use the casualty's own hand.
- ✓ Lie casualty flat.
- ✓ Apply a dressing to the wound and bandage firmly in place.
- ✓ Loosen tight clothing from around the neck, chest and waist.
- ✓ Elevate and support bleeding part except if fractured.
- ✓ Monitor and record vital signs.
- ✓ Check for shock.
- ✓ If bleeding persists, apply a second dressing.
  DO NOT REMOVE THE FIRST DRESSING.
- ✓ Protect the casualty from weather conditions.
- ✓ Seek medical aid.

NEVER LEAVE THE CASUALTY ALONE

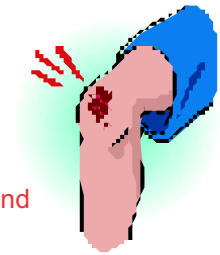
Abrasions:

Abrasions occur as a result of a fall onto a hard surface, creating a grazing injury to the skin. Dirt may become embedded in the wound.

Treatment

- ✓ Clean the wound with antiseptic solution or clean sterile water using gauze swabs.
- ✓ Apply a non stick dressing.

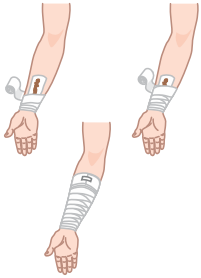
✖ DO NOT USE COTTON WOOL as it sticks to the wound



Bleeding

Lacerations:

A laceration is a large cut or a tear to the skin, which will need to be seen by a doctor, especially if a Tetanus booster or stitching is required.



Treatment

- ✓ Control bleeding
- ✓ Clean the wound with antiseptic solution or sterile water.
- ✓ Use steri-strips or tape to hold the skin together.
- ✓ Pad and bandage.
- ✓ Seek medical attention.

Embedded objects:

Fish hooks, sticks, steel, shards of glass or timber.

Treatment:

- ✓ Pad around the object.
- ✓ Ensure that the bleeding has stopped.

DO NOT

- ✗ PUT PRESSURE OVER THE OBJECT
- ✗ SHORTEN THE OBJECT UNLESS IT IS UNMANAGEABLE
- ✗ REMOVE ANY EMBEDDED OBJECTS

Crater Wounds:

These occur when large pieces of tissue are torn away from the body. Severe bleeding and shock can occur.

Treatment:

- ✓ Pack wound with sterile material.
- ✓ Apply direct pressure and a compression bandage
- ✓ Reassure and place in a comfortable position.
- ✓ If bleeding persists, apply a second dressing.
- ✗ DO NOT remove the first layer and compression bandage

Bleeding Nose:

Treatment:

- ✓ Sit the casualty with their head slightly forward.
- ✓ Apply direct pressure to the soft part of the nose for at least 10 minutes (longer pressure may be need in hot weather or after exercise).
- ✓ If bleeding continues place an ice pack over the forehead and the back of the neck.
- ✓ Seek medical advice if bleeding cannot be controlled.

DO NOT LET THE CASUALTY BLOW THEIR NOSE FOR 3 HOURS

If an Ambulance is required - call immediately - do not delay

Bleeding Scalp:

Treatment:

- ✓ If possible, sit the casualty in an upright position as this may help to reduce the bleeding.
- ✓ Direct pressure may need to be maintained, as it is hard to bandage the head firmly enough.
- ✓ Apply an ice pack on the wound.
- ✗ DO NOT panic as wounds can bleed profusely.

Bleeding from Varicose Veins:

Treatment:

- ✓ Reassure and place in a comfortable position.
- ✓ Remove constrictive clothing from legs.
- ✓ Apply a pad and bandage.
- ✓ Seek medical advice.

Amputation:

Treatment:

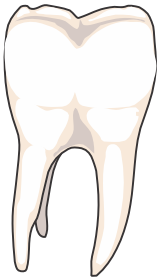
- ✓ Apply a dressing and bandage to the stump.
- ✓ Place the amputated part in a plastic bag and seal it.
- ✓ Place the sealed plastic bag into another plastic bag and seal completely.
- ✓ Place the plastic bag into a container of cooled ice water.
- ✓ If no plastic bags, wrap part in a damp piece of cotton material and keep in a cool place but do not allow direct contact to ice
- ✓ Remain calm at all times.

NOTE: An arterial tourniquet must only be used if the casualty is suffering from life-threatening bleeding and direct pressure is not stemming the flow of blood. Some cases may include: Shark attack, or major damage caused by a propeller from a plane or a boat motor.

Lost Teeth:

Caused by falls and hard blows.

Treatment:



- ✓ Clean tooth with milk, water or saliva.
- ✓ Replace tooth if possible.
- ✓ Splint to adjacent teeth with foil.
- ✓ Contact Dentist

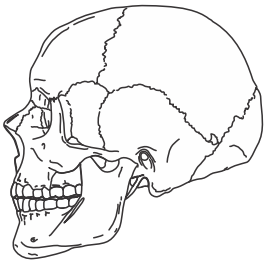
Store tooth in cows milk if tooth cannot be replaced

Head Injuries

A head injury is an injury to the brain or to the skull surrounding the brain following trauma. Head injuries should never be taken lightly. A doctor must evaluate any period of unconsciousness. Ring for an Ambulance immediately and watch for deterioration of casualty's condition. With head injuries, always suspect spinal injuries, and treat accordingly. In some cases the casualty may not have received a trauma to the head, but may have severely jarred the head, causing an injury to the brain.

Causes:

- A rapidly moving blunt object striking the head or the head hitting a hard surface.
- Car and motorcycle accidents.
- Diving into shallow water.
- Sport



Concussion:

Concussion is caused by the bruising or shaking of the brain within the skull due to trauma or a severe jarring to the head. This causes a disturbance in the brain, which is temporary. A person is diagnosed as suffering from concussion, once the casualty has fully recovered.

Severe Head Injuries:

Severe Head Injuries are caused by severe trauma to the head and as a result, the brain is injured. Injuries to the brain can leave permanent disabilities to the casualty. Recovery can be a slow process. These are genuine emergencies. Seek medical aid immediately. Head injuries are the leading cause of death following trauma. Be prepared for the casualty's condition to deteriorate.

Progressive / Compressed Head injury:

This serious form of head injury is often difficult to diagnose and usually requires surgery to rectify the damage caused to the brain. Progressive or compressed head injuries occur when the brain swells, a small blood vessel bleeds, or a skull fracture is pointing inwards and puts pressure on the brain inside the skull. Progressive or compressed head injuries can develop immediately after the injury occurs or it may be delayed for hours or even days in some cases. As the condition develops, the level of responsiveness from the casualty will deteriorate the longer the condition is left untreated.

Fractured Base of the Skull:

This occurs when either the base, front or side of the skull is fractured.

Head Injuries

Signs and Symptoms may include:

- Decreased level of consciousness, partial, brief or permanent
- Bruise, lump, or wound to the head
- Headache
- Possible nausea or vomiting
- Abnormal response to stimuli
- Blurred vision
- Laboured breathing
- Weak pulse
- Blood or clear fluid running from the ears and / or nose
- Abnormal response to verbal or painful stimuli
- Unequal or dilated pupils
- Possible Seizures
- With a fractured base of skull sometimes the mouth is open and bleeding into the eyes occurs

Unequal pupils may occur. However, this is usually a late sign that damage may have already occurred to the brain

Treatment:

Follow the Basic First Aid Plan to assess the casualty

- ✓ If casualty is unconscious, place in the lateral position supporting the head and neck.
- ✓ If casualty is conscious, place casualty in a comfortable position supporting the head and neck.
- ✓ If ear is weeping, lean injured side down and place a pad under it.
- ✓ If possible apply a cervical collar; collars can consist of towels or jumpers. If not available manually support the head. If a fractured base of the skull is suspected then manually support the head.
- ✓ Control bleeding.
- ✓ Complete a secondary assessment and treat any other injuries.
- ✓ Call for an Ambulance immediately.

- ✖ DO NOT FORCE THE MOUTH CLOSED AS YOU MAY FRACTURE THEIR JAW.

- ✖ WITH ANY HEAD INJURY ALWAYS SUSPECT SPINAL INJURIES.

If an Ambulance is required - call immediately - do not delay

18 Spinal Injuries

The spinal column consists of 33 bones or vertebrae, which support the body and surround the spinal cord for protection. Discs separate the vertebrae, which act like shock absorbers. The spinal cord consists of nerves and fibres, which transmit messages from the brain to the rest of the body. If the cord is damaged or cut, communication between the brain and the rest of the body ceases below the injured site.

Damage can be permanent.

DEFINITION OF A SPINAL INJURY

Paraplegia: Paralysis of the legs and lower part of the body.
Quadriplegia: Paralysis of all four limbs, from the neck down.

Causes

- Traffic accidents
- Sporting accidents
- Diving accidents
- Gunshot wounds
- Heavy falls or falls from a height

Signs and Symptoms may include:

- History of injury
- Pain in the neck or back
- Tenderness
- Weakness or inability to move the arms or legs
- Casualty has symptoms of pins and needles in the limbs
- Loss of power in limbs

Treatment of a Conscious Casualty

Follow the Basic First Aid Plan to assess the casualty

- ✗ DO NOT MOVE THE CASUALTY UNLESS IN IMMEDIATE DANGER.
- ✓ Reassure the casualty.
- ✓ Keep the casualty still.
- ✓ Call for an Ambulance.
- ✓ Support the neck.
  - manually support head & neck
  - cervical collar may be applied – towel, jumper
- ✓ Treat any other injuries

If an Ambulance is required - call immediately - do not delay

Treatment of an Unconscious Casualty

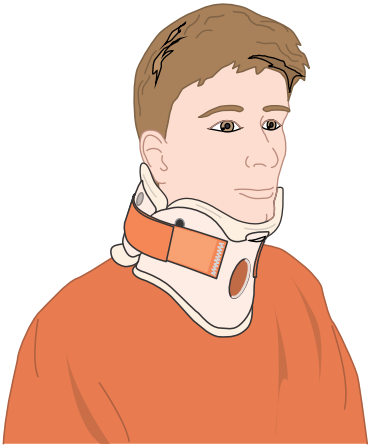
Follow the Basic First Aid Plan to assess the casualty

- ✓ Immobilise neck immediately
  - ■ Manually support head & neck
  - ■ cervical collar may be applied (if you have the skill)
- ✓ With as much assistance as possible log roll the casualty onto their side.
  - ✗ DO NOT let the head or neck move
  - ✗ DO NOT TWIST, COMPRESS OR BEND THE BACK
- ✓ Maintain an open airway
- ✓ Complete examination and treat any other injuries
- ✓ Cover casualty with a blanket
- ✓ Monitor and record vital signs

If injured in the water

- ✗ Do not remove the casualty unless unconscious or in danger
- ✓ Wait for expert help to arrive
- ✓ Manually support the head, neck and back
- ✓ If casualty has to be moved from the water, try and use a surfboard or a flotation device

Maintain support of the head and neck at all times

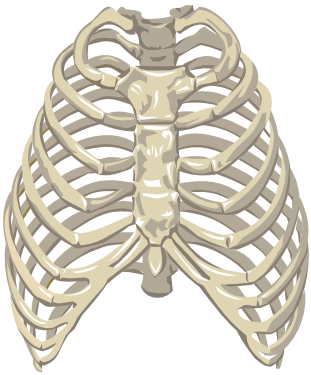


Chest Injuries

The ribs protect the lungs. Chest injuries can be life threatening by causing breathing difficulties. These injuries may not be obvious and a thorough examination is needed. The casualty's condition can deteriorate rapidly, so the need for constant assessment is required.

Fractured Ribs:

Fractures of the ribs can be caused by direct force to the chest area. The fracture may be a closed fracture, but the ribs can also be pushed into the lung, damaging the lung, causing bleeding to occur into the lungs or chest cavity.



Flail Segment:

This occurs when several ribs are fractured in two or more places, causing part of the ribcage to become loose. The fractured ribs involved move in the opposite direction to the rest of the ribcage during respiration. This is called Paradoxical Breathing. This injury is common in motor vehicle accidents, especially with elderly casualties. This type of chest injury can be serious as it can cause damage to the lungs.

Penetrating Chest Wound:

This could be caused by an accident where fractured ribs damage the soft tissues as a result of a stabbing, gunshot, or impaled object. This injury may cause the lung to collapse and create breathing difficulties. Treatment must commence immediately. The medical name for this condition is Pneumothorax. Bleeding into the lung may also occur, further complicating the casualty's injury.

Causes:

- Accidents – steering wheel blow, seatbelt crushing on the chest, exploding airbags.
- Heavy falls or falls from a great height.
- Crushing
- Stabbing
- Gunshot

Note:

Always be suspicious of falls greater than five metres or a high-speed car accident over 60km/h.

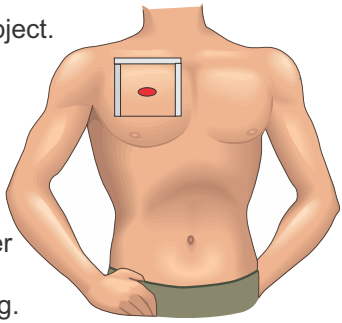
Signs and Symptoms may include:

- Breathing may be short, rapid and gasping.
- Chest pain increases when deep breathing or coughing.
- Favours injured side.
- Possible hole in the chest.
- Possible rapid pulse
- Sucking noise can be heard when inhaling.
- Decreased chest movement
- Skin may be pale or blue
- Obvious chest injury – bruising, indent, red area
- Anxiety
- Restlessness
- Bloodstained frothy sputum
- Embedded object

Treatment:

Follow the Basic First Aid Plan to assess the casualty.

- ✓ Assist casualty into a half sitting position, with the injured side leaning down.
- ✓ If casualty is unconscious, place casualty onto their side with the injured side down. Seek urgent medical aid.
- ✓ Support the area by placing bulky padding (towel or jumper) over the injured site and securing in place with 2 broad bandages above and below the injured site, and tie off on the uninjured side.
- ✓ For penetrating chest wound place a dressing or gloved hand on the wound until an airtight dressing is obtained e.g. plastic bag, alfoil, or sterile non-adhesive dressing. Tape the top and both sides of the airtight dressing. Do not tape the lower edge of the airtight dressing.
- ✓ If an object is embedded in the chest:
  - ✗ Never remove the embedded object.
  - ✓ Apply padding or dressings around the embedded object to support the embedded object and to help control bleeding.
  - ✗ Do not apply direct pressure over the object.
- ✓ Immobilise the arm with a cuff and collar sling.
- ✓ Seek medical aid.
- ✓ Watch for signs of shock.



Eye Injury

The eye is very susceptible to infection. Always wash hands thoroughly or use sterile gloves when treating eye injuries.

- If the casualty is wearing contact lenses, have the casualty remove them.
- To prevent movement and further damage to the injured eye, both eyes need to be covered. Explain to the casualty why and what you are doing.
- Reassure the casualty.

Foreign Bodies – Minor:

Causes

- Eyelashes
- Cosmetics
- Glass
- Insects
- Grit or dirt
- Metal

Treatment

Follow the Basic First Aid Plan to assess the casualty

- ✓ Stand behind casualty and tilt their head back.
- ✓ Ask the casualty to look left, right, up and down.
- ✓ Remove any foreign object only if on the white of the eye.
- ✓ Place the upper lid over the lower lid of the eye.
- ✓ Use sterile water to wash out the eye.

Foreign Bodies – Major:

Treatment:

Follow the Basic First Aid Plan to assess the casualty.

- ✓ Lay the casualty on their back with their shoulders raised.
- ✓ Ensure the casualty avoids eye movement by covering the eye making sure there is no contact with the eye's surface.
- ✓ Use a ring pad over the eye and bandage in place to prevent the foreign body or the eye from moving.
- ✓ Always cover both eyes to prevent eye movement.
- ✗ DO NOT remove an object on the coloured part of the eye.
- ✗ DO NOT remove an embedded object from the eye.
- ✗ DO NOT rub the eyes.

Burns to the eye:

Treatment:

Follow the Basic First Aid Plan to assess the casualty.

- ✓ Gently open the eyelids and wash the eyes with cold running water for twenty minutes.
- ✓ Place eye pads over both eyes and bandage in place.
- ✓ Seek medical attention.
- ✗ DO NOT rub the eyes.

Abdominal Injuries

Injuries to the abdominal region require prompt medical aid. If the liver, spleen or pancreas is damaged, profuse internal bleeding can occur. Injury to the bowel can cause the contents to spill into the abdominal cavity causing infection. Shock is also a complication of these types of injuries.

Causes:

- ☆ Car accidents
- ☆ Bike accidents
- ☆ Hard and heavy blows or falls
- ☆ Sport
- ☆ Swallowing foreign objects.

Signs and Symptoms may include:

- Pain
- Pale, cold clammy skin
- Bleeding from the anus or genitals if injured.
- Blood stained vomit or urine.
- Breathing noises
- Tenderness
- Bruising, and/or swelling
- Protruding intestines

Treatment:

Follow the Basic First Aid Plan to assess the casualty

- ✓ Assist the casualty into a comfortable position.
- ✓ Usually with the head raised slightly and the knees flexed will relieve the pressure or placed in the fetal position.
- ✓ Cover protruding intestines with plastic wrap, a non-stick dressing or if not available, a wet dressing could be used.
- ✓ Monitor vital signs.
- ✓ Seek medical aid immediately.
- ✓ Give NIL BY MOUTH.
- ✓ Treat other associated injuries.

DO NOT
PUSH THE INTESTINES BACK
INTO THE ABDOMINAL CAVITY

Appendicitis:

The appendix is a thin, worm shaped pouch about 9cm long, and is attached to the large intestine. It has no function, but when it becomes inflamed, the condition is called Appendicitis. Appendicitis is treated by surgery. The casualty will have pain in the abdomen or lower right side, rigidity of abdominal muscles, swelling and high temperature – febrile.

Treatment

Follow the Basic First Aid Plan to assess the casualty

- ✓ Loosen clothing.
- ✓ Lay casualty down.
- ✓ Elevate legs or bend knees or place in the fetal position.
- ✓ NIL BY MOUTH.
- ✓ Seek medical advice.
- ✓ If the casualty is more comfortable they may lay in the lateral position with their legs flexed.

Electrocution

High and low voltage is one of the most dangerous situations you as a First Aider may encounter. As the first aider you must ensure that you and all bystanders remain at least 6 metres clear of any energised material.

High Voltage Currents

DO NOT - approach the area until you are sure the power supply had been disconnected

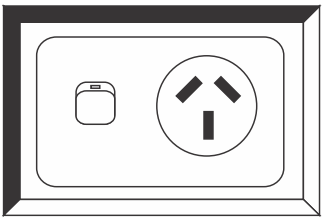
BE AWARE - of wires lying on the ground as they can move by themselves

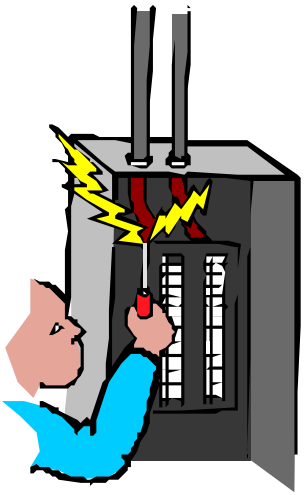
WATCH - for water lying around the area surrounding live wires

Initial Survey

DANGER

- Assess the scene and be aware of any danger that MAY be present.
- Identify the dangers that ARE present.
  - to you
  - to bystanders
  - to the casualty





What to do

- ✓ Turn off the electricity supply at the metre box. (The switch or the appliance may be faulty).
- ✓ Pull the fuse out.
- ✗ If you are wet DO NOT attempt to rescue the casualty.
- ✓ Use a broom or wooden stick to move the casualty away from the source of electrocution.
- ✓ BE CAREFUL
- ✓ Continue the primary survey RSABCD.
- ✓ Commence CPR if the casualty has no signs of life.
- ✓ Treat any burns including entrance or exit wounds.
- ✓ Look for any other injuries and treat as required.
- ✓ Deep tissue burns can occur between the entrance and exit points.

Poisoning

There are numerous types of poisonous substances that can injure a person. Poisoning is harmful to the body's functions. Poisoning can burn the casualty's airway and stomach tract. It can occur without the knowledge of the casualty. Leaks can occur from industries or pipes, car accidents, work accidents (hitting a gas pipe) etc.

A person can be poisoned by:

Poisons can be found in solid, liquid or gaseous forms.

- Swallowing the poison
- Absorbing the poison
- Injecting the poison
- Inhaling the poison

Prevention

- When attempting a rescue, do not become affected yourself.
- ✗ Do not leave poisons or medicines in low unlocked cupboards.
- Use correctly labelled, original, childproof containers.
- ✗ Never use drink bottles to store poisons or medications.

Different poisons have different effects on the body:

Signs and Symptoms may include:

- Nausea or vomiting
- Sleepiness and tiredness
- Burning pains, from mouth to stomach
- Difficulty in breathing
- Casualty smells of fumes
- Tight, sore chest
- Dizziness
- Headache
- Blue lips
- Skin contamination
- Burns to the body
- Burns to the mouth
- Decreased levels of consciousness
- Blurred vision

Treatment

Follow the Basic First Aid Plan to assess the casualty

- ✓ If the casualty is unconscious place them in the lateral position and maintain an open airway.
- ✓ Call the poison information on 131126.
- ✓ Call for an Ambulance immediately.
- ✓ If the casualty is conscious, take a history.
- ✓ If gas leaks or chemical spill is suspected; call the Fire Brigade.

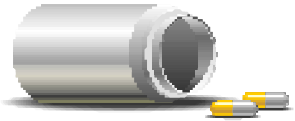
Poison Information
13 11 26

23 Drug Overdose

Drug overdoses can be deliberate, recreational or accidental. There are numerous types of drugs that can be taken: Prescribed drugs, over the counter drugs, or illicit drugs. They can be inhaled, swallowed, or injected. Signs and symptoms will vary according to the drug that was taken. Some drugs can reduce the capacity to breathe.

Signs and Symptoms may include:

- Vomiting
- Pale, cold, clammy skin
- Breathing difficulties
- Pulse may be rapid and weak
- Decreased level of consciousness
- Syringes, drugs
- Abdominal pain
- Sleepiness
- Empty bottles and containers
- Possible side effects
  - Violence
  - Anxious
  - Hallucinations
  - Excitability



Treatment:

Follow the Basic First Aid Plan to assess the casualty

- ✓ Ascertain what drug the casualty has taken, what dosage, when and how
- ✓ If the overdose is deliberate, be aware that the casualty will probably lie to you or be violent towards you
- ✓ Look for evidence of:
  - Medicines used
  - Drugs/syringes
  - Track marks
  - Bottles or containers
  - Suicide notes
- ✓ Call for an Ambulance
- ✓ Call for Police if the casualty is violent
- ✓ If the casualty vomits, collect a sample and take it to the hospital with you or hand it over to the Ambulance officer when they arrive.
- ✓ Send any medicine bottles, suicide notes etc as well
- ✓ Maintain an open airway
- ✓ If unconscious place casualty into the lateral position
- ✗ Do not aggravate the casualty, as they can get violent. Watch the casualty at all times.
- ✗ Never turn your back on the casualty

If you suspect that the casualty may turn violent, call for Police assistance

If unsure of what to do, ring the Poisons Information Centre on

131126

If an Ambulance is required - call immediately - do not delay

Snake and Funnel Web Spider Bite:

Australian Snakes are among the most venomous in the world. Snakes produce venom in their salivary glands, which is forced under pressure through their fangs from the upper jaw.
Some types of snakes are: Red Belly Black, Tiger, Taipan, Brown, and Black.

Male Funnel Web

Female Funnel Web

Funnel Web Spiders are extremely venomous. Funnel webs are communal spiders and build burrows in moist soil, rockeries and compost heaps. They can be found in shoes and clothing that is left on the ground.
The funnel web spider is a large black to dark brown spider. It has a body length of approximately 3 cm. The male spider has a shorter more slender body than the female, has spurs on his second front legs and long spinnerets on the rear of the abdomen. The male funnel web is deadlier than the female species, but the female is more aggressive than the male.
The funnel web spider can breathe under water, and is often found on the bottom of pools or in the pool filter systems.

Signs and symptoms may include

- Pain at the bite site.
- Paired fang marks or scratches.
- Redness or swelling around bite site.
- Tingling around the mouth.
- Headache
- Nausea or vomiting
- Blurred vision
- Abdominal pain
- Over production of saliva.
- Sweating
- Laboured breathing
- Swallowing difficulties
- Unconsciousness

NOTE: Dangerous effects may occur within minutes.

95% of bites occur on the limbs.
70% of bites occur on the legs.

DO NOT Cut the bite site.
DO NOT Use a tourniquet.
DO NOT Wash the affected area.
DO NOT Suck the bite site.
DO NOT Remove bandages or splints once they are on.
DO NOT Let the casualty move around or walk to medical aid.
DO NOT Raise the bite site above the heart.

If an Ambulance is required - call immediately - do not delay

Bites and Stings

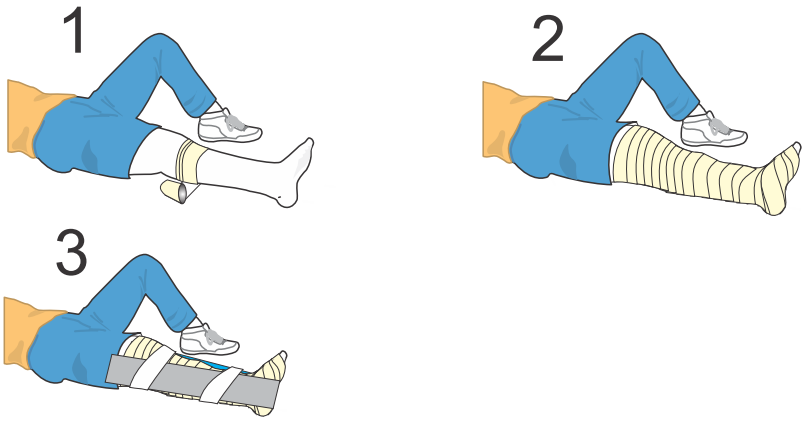
Treatment:

Follow the Basic First Aid Plan to assess the casualty

- ✓ Apply firm pressure immediately over the site.
- ✓ Lay the casualty down.
- ✓ Reassure the casualty.
- ✓ Keep the casualty and bitten limb completely rested. Do not move them.
- ✓ Place a non stick dressing over the bite site.
- ✓ Apply a pressure immobilisation bandage to the entire bitten limb. A number of crepe bandages is preferred. If not available, tear material strips 100mm to 150mm wide.
- ✓ Splint the bitten entire limb to stop movement.
- ✓ Bring medical aid to the casualty to prevent movement.
- ✓ Transport the casualty via Ambulance when ever possible.
- ✓ Monitor and record the vital signs until medical help arrives.
- ✓ If casualty becomes unconscious, place them on their side with the affected area lower than the heart.

How to apply a Pressure Immobilisation Bandage:

- ✓ Apply a pressure bandage over the bite site as soon as possible as firm as you would a sprained ankle.
- ✓ Apply further pressure bandage from the fingers or toes of the bitten limb and bandage to the top of the limb.
- ✓ Splint the bandaged limb.
- ✓ Keep the affected area lower than the heart at all times.
- ✓ Once applied do not remove the splint or bandages.



If an Ambulance is required - call immediately - do not delay

Red Back Spider, White Tail Spider, and Other Spiders:

Red Back Spider has a body length of one cm. It has a red, orange or pale stripe down its back. The bite is painful, and can be life threatening for a child, but seldom serious for an adult.

White Tail Spider has been implicated in the destruction of local tissue areas. Local effects may be severe. The area around the bite site is painful and can break out into little blisters. The white tail spider has a long grey body, may have white bands on its back and the tip of its tail is white.

If you are not sure what type of spider you have been bitten by, then treat the bite as if it is a funnel web spider bite, and try to bring the spider to the hospital with you if it safe to do so.

Signs and Symptoms may include:

- Local pain, which can increase and spread.
- Swollen, hot red bite site.
- Sweating
- Swollen glands under the armpits or in the groin.
- Muscle tightness.
- Abdominal pain
- Nausea and dizziness.
- Breathing difficulties

NOTE: **With a Red Back Spider bite local pain occurs immediately after being bitten by the spider, but the venom reacts slowly, so a serious side effect is unlikely to occur for 2 – 3 hours.**

Treatment:

Follow the Basic First Aid Plan to assess the casualty

- ✓ Wash the immediate area
- ✓ Apply cold pack
- ✓ Watch for allergic reaction
- ✓ Seek medical advice

NOTE: The pressure immobilisation bandage is not recommended for:
Red Back Spider bite as the venom acts slowly and attempts to slow down the flow can increase pain at the bite site.
White Tail as it forces the venom further into the tissue.

If the spider cannot be positively identified correctly, treat as a funnel web spider and apply a pressure immobilisation bandage

Bites and Stings

Bee Stings, Wasps and Ants:

Signs and symptoms may include:

- Immediate, intense pain
- Redness
- Swelling

Reactions may include

- Itchy bite site
- Facial swelling
- Wheezing and / or breathing difficulties
- Unconsciousness

NOTE: A life threatening allergic reaction may occur within minutes. If the casualty swallows a bee and is stung, or is stung around the neck, seek urgent medical attention.

Treatment:

Follow the Basic First Aid Plan to assess the casualty

The bee sting should always be scraped sideways to prevent further venom injections.

- ✓ Wash the affected area and apply cold packs over the bite site.
- ✓ Watch for signs of allergic reactions to the bite.
- ✓ If the casualty is stung around the neck or casualty is sensitive to any type of insect stings, the airway may swell, so apply ice packs around the neck to reduce any swelling that may occur.

NOTE: Any casualty with a known allergy to stings must take the required medication immediately. This should be carried by the casualty for self-administration. (See chapter on Anaphylaxis and the use of the Epi-pen).

If the casualty has a history of allergic reactions or shows any signs of an allergic reaction, place a Pressure Immobilisation Bandage on the affected area immediately.

Tick:

Ticks can be found anywhere on the body especially in hairy areas, folds of skin, on the head, or between the fingers and the toes. The Australian paralysis tick causes envenomation in humans. Ticks are capable of spreading diseases such as Lyme disease or Tick Typhus.

Signs and Symptoms may include:

- Local irritation most common
- Lethargy
- Muscle weakness
- Double vision
- Difficulty in swallowing and breathing.

NOTE: Signs and symptoms can develop over several days. Although allergic symptoms can occur within hours, this rarely occurs.

Treatment:

- Use fine tipped forceps. Place the pointed end of the tweezers down onto the skin on either side of the front part of tick and gently and slowly lever the tick out.
- ✗ Do not squeeze the tick or pull the head apart from the body while removing it, as it will squeeze more venom into the body.
- ✗ Do not cut the tick.
- Clean the area with antiseptic.
- Casualty should see their doctor to check that further treatment is not required.
- If the casualty is having an allergic reaction, DO NOT remove or touch the tick and seek medical aid.

Allergic Reaction signs and symptoms may include:

- Rash
- Fever
- Headache
- Aching joints
- Breathing difficulties
- Itchiness

Blue-Ringed Octopus and Cone Shell

The Blue-Ringed Octopus venom is injected into the body by a bite from a beak like mouth. The Cone Shell is found in tropical waters. If handled or stepped on with bare feet, it can inject venom. The poison paralyses the respiratory system, causing the casualty to suffer breathing difficulties. Constant monitoring and immediate medical aid is needed.

Signs and Symptoms may include:

- Blue-ringed Octopus - A spot of blood visible but the bite is painless.
- Cone Shell - A sharp sting is usually felt.
- Numbness of the lips and the tongue.
- The progressive weakness of muscles used for breathing.
- BREATHING DIFFICULTIES MAY OCCUR QUICKLY.

Bites and Stings

Treatment:

Follow the Basic First Aid Plan to assess the casualty

- ✓ Apply a pressure immobilisation bandage as soon as possible.
- ✓ Monitor signs of life and start CPR if required.
- ✓ Seek urgent medical help.

Blue Bottle Jelly Fish / Jelly Blubber:

Signs and Symptoms may include:

- Marks on the skin – red welts.
- Blue tentacles may still be attached to the skin.
- Pain / stinging for some hours may surround the bite site.
- Nausea, headache, vomiting can occur.
- Breathing difficulties and tightness of chest can occur.

Treatment

- ✓ If tentacles are still attached to the skin, remove them with tweezers or try and wash them off with seawater.
- ✓ Place the affected area in hot water (no hotter than rescuer can comfortably tolerate) if not available apply cold or ice packs to relieve the pain.
- ✓ Treat other symptoms as they present.

Box Jellyfish or Sea Wasp:

The Large Box Jellyfish and Irukandji Jellyfish are found in the tropical regions of Australia from approximately Bundaberg upwards.

Signs and Symptoms may include

- Immediate intense burning pain.
- Deep red marks appearing as skin welts.
- Characteristic frosted ladder pattern.
- Tentacles may still be attached to the skin.
- Muscle cramps in the limbs, chest and abdomen.
- Casualty becomes irrational with abnormal behaviour.
- Circulation problems causing the casualty to cease breathing.
- Cardiac Arrest

Treatment:

Follow the Basic First Aid Plan to assess the casualty

- ✗ DO NOT rub the affected area.
- ✓ D R S A B C D
- ✓ Douse the entire area thoroughly with vinegar for 30 seconds (if available).
- ✓ Remove the tentacles and rinse with seawater.
- ✓ Apply a ice pack to help relieve the pain.
- ✓ Rest the casualty and prevent any unnecessary movement.
- ✓ Transport the casualty to the hospital – preferably by Ambulance.
- ✓ Watch vital signs. Perform CPR if required.
- ✗ DO NOT APPLY PRESSURE IMMOBILISATION BANDAGE.

Venomous Barbs

Types of fish include: Stingrays, stonefish, bullrout, fish with spines on them.

Platypus: The male Platypus has a set of spurs on his back legs, and when provoked will attack you with them.

Signs and symptoms may include:

- Immediate, intense pain
- Swelling
- Local grey/blue discolouration
- Open wound
- Bleeding
- Irrational behaviour and panic

Treatment:

- ✓ Place the limb in hot water, as hot as the casualty can tolerate.
- ✓ If the heat does not relieve the pain, place an ice pack over the wound.
- ✓ Dress the wound.
- ✓ Transport to hospital.

NOTE: DO NOT apply the pressure immobilisation bandage.

Over Exposure

Hyperthermia: (body core temperature greater than 38 deg).
The normal body core temperature is 37 degrees Celsius. In hot, humid conditions eg. working outdoors, sport, fun runs, water sports activities; people are at risk of heat illness. Children, babies and the elderly are more at risk of suffering from Hyperthermia. If they suffer from hyperthermia, a doctor MUST see them.

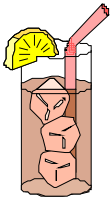
Signs and symptoms may include:

- Migraine
- Confusion
- Dizziness
- Feeling faint
- Visual problems
- Hot dry skin
- Irritability
- Irrational behaviour
- Rapid strong pulse
- Possible seizures Unconsciousness
- Body's systems shut down.

✗ Do not drink alcohol. This causes frequent urination, therefore further body fluid loss is suffered.
✗ Do not smoke.
✗ Do not leave infants, children or the elderly in closed cars during hot weather.
✓ Stop all activities when suffering from heat cramps or heat exhaustion. Do
✗ not participate in fun runs, strenuous sport or activities on hot sunny days.

Treatment:

Follow the Basic First Aid Plan to assess the casualty.



Dehydration:

✓ Move the casualty immediately into a cool shaded area.
✓ Lay the casualty down.
✓ Remove the outer clothing.
✓ Frequent small sips of water.

Heat Cramps:

✓ As above
✓ Apply ice packs to the cramped muscles.
✓ Gently stretch the muscles, but do not massage.
✓ Rest

Heat Exhaustion and Heat Stroke:

✓ As above
✓ Reduce the body temperature.
✓ Sponge the casualty with water.
✓ Cover with wet dressings.
✓ Fan the casualty.
✓ Apply cold packs in severe cases to the groin, arm pits and neck.
✓ Continue cooling until skin temperature feels normal or casualty begins to shiver.
✓ Seek urgent medical advice and aid.

If an Ambulance is required - call immediately - do not delay

Over Exposure

Hypothermia: (body core temperature less than 37 deg).
Hypothermia occurs when the body loses heat quicker than it can produce it. The core temperature of the body decreases. This causes muscular and internal body organ functions to become impaired and if left untreated, to cease functioning, causing death. It is frighteningly easy for a casualty to become hypothermic. The casualty's condition can progress quickly, from cold to dangerously cold due to a combination of wind, wet clothing, fatigue and hunger, even if the temperature is above freezing. The temperature and the wind can reduce the body temperature quickly.

	Signs and Symptoms	Treatment
Mild	• Involuntary Shivering • Decline in complex motor skills • Extremities look blue • Feels cold • Fatigue	✓ Add additional clothing ✓ Change wet clothes ✓ Gently exercise ✓ Find shelter ✓ Hydration and nutrition
Moderate	• Confusion • Decline in fine motor skills • Slurred speech • Blurred vision • Uncontrollable shivering • Irrational behaviour • Defeated attitude	✓ Change wet clothes ✓ Gently exercise ✓ Find shelter ✓ Hydration and nutrition ✓ Body to body contact ✓ Protect nose, neck and head
Severe	• Violent shivering - occurring in waves • Can not walk • Rigid Muscles • Pale skin • Cold to touch • Unconsciousness	✓ Treat as mild / moderate ✓ Seek medical aid ✓ Do not jar body ✓ Monitor vital signs ✓ Unconscious – place the casualty into the lateral position
Critical	• Dilated pupils • Shivering ceased • Slow, shallow and erratic breathing • Decreased pulse rate • Unconsciousness • Death can occur	✓ Absent respirations – perform CPR ✓ Continue to rewarm the body

If an Ambulance is required - call immediately - do not delay

Over Exposure

Freezing cold injury / Frostbite:

Frostbite results from the freezing of tissues causing ice crystal formation and blocking of small blood vessels. The areas most commonly affected are those exposed to cold or windy conditions are face, ears, fingers and toes

Treatment of superficial frostbite

Superficial frostbite is which only the skin is frozen and can still be moved in relation to the underlying tissue

- ✓ Seek shelter. Get out of the cold and wind
- ✗ DO NOT rub the frozen tissue
- ✗ DO NOT use radiant heat to rewarm the part
- ✓ Rewarm the affected part immediately
- ✓ Rewarming can be very painful.
- ✓ Ensure that re-freezing does not occur.

Treatment of Deep frostbite

Deep frostbite involves deeper tissues.

- ✓ Seek Shelter. Get out of the wind and cold
- ✓ Remove constrictive or damp clothing if dry replacement clothing is available
- ✓ Wrap in warm blankets and give warm fluids by mouth
- ✓ If tissue is still frozen, place the injured part in a warm water bath with circulating water until the affected part thaws.
- ✓ Seek medical aid
- ✓ Elevate the affected part
- ✗ DO NOT use radiant heat to rewarm part
- ✗ DO NOT break blisters
- ✗ NEVER thaw a part if there is any likelihood of it being refrozen.

Non-freezing cold injury

Prolonged exposure of limbs to low temperatures above freezing may lead to “Trench Foot” or “Immersion Foot"

Treatment

- ✓ Dry the foot well. Keep the body warm but the foot cold
- ✓ Elevate the foot
- DO NOT walk on the affected foot.
- ✗ DO NOT use radiant heat to rewarm the part

If an Ambulance is required - call immediately - do not delay

Crushed Victim

Crush injuries may result from many situations, including vehicle accidents, workplace accidents, falling debris or by prolonged pressure to a part of the body due to their own body weight in an immobile casualty.

The likelihood of developing acute crush syndrome is directly related to the compression time, therefore the casualty should be released as quickly as possible, irrespective of how long they have been trapped.
Crush syndrome results from the disruption of the body's chemistry and can cause heart, breathing & kidney failure.

Treatment:

Follow the Basic First Aid Plan to assess the casualty.

- ✓ Ensure the scene is safe, and that there is no risk of injury to the rescuer or bystanders.
- ✓ Call an ambulance.
- ✓ If it is safe and physically possible, all crushing forces should be removed from the casualty as soon as possible.
- ✓ A casualty with a crush injury may not complain of pain, and there may be no external signs of injury.
- ✓ Keep the casualty warm, treat any bleeding.
- ✓ Continue to monitor the casualties condition. If the casualty becomes unresponsive and is not breathing normally, start CPR.

✖ DO NOT leave the casualty except if necessary to call an ambulance

✖ **DO NOT use a tourniquet for the first aid management of a crush injury**

Note: A crushing force which is applied to the head, neck, chest or abdominal area's can cause death from breathing or heart failure. The crushing force must be removed immediately.

Stroke

A stroke is where the blood supply to a part of the brain is interrupted. The main causes of strokes are ruptured blood vessels, damage to the brain, or blockages to a blood vessel occurring in or around the brain.

Strokes can occur in young people as well as the elderly.

Signs and Symptoms may include:

- Confusion
- Severe headache
- Facial weakness with difficulty in swallowing.
- Unequal pupils may be possible.
- Casualty may be unconscious.
- Loss of movement, feeling or control of one side of the body.
- Slurred or garbled speech
- Epileptic seizures may occur.
- Pulse may be strong.

If you suspect someone may be having a stroke, do this simple test:

F **Face** Check their face. Has their mouth drooped?
A **Arms** Can they lift both arms?
S **Speech** Is their speech slurred? Do they understand you?
T **Time** Is critical. If you see any of these signs call 000 straight away.

Treatment:

Follow the Basic First Aid Plan to assess the casualty.

- ✓ **Call for an Ambulance.**
- ✓ Make the casualty comfortable.
- ✓ If unconscious, place the casualty in the lateral position, with the affected side down to allow any saliva to drain from the mouth.
- ✓ If conscious, lean the casualty towards the affected side.
- ✓ Raise the head and shoulders slightly.
- ✓ The casualty will benefit from oxygen therapy.
- ✓ Reassure the casualty. Do not panic.
- ✓ As you move the casualty, watch how you handle the affected limbs as they can be dislocated or the muscles damaged.

If an Ambulance is required - call immediately - do not delay

Diabetes

Diabetes is a condition where the body's blood sugar level is not regulated. The Pancreas produces a hormone called Insulin, which controls the blood sugar level.
Diabetics need to monitor and regulate the amount of sugar that is in their body. This can be controlled by medication either by tablet or injection, or in some cases by diet. Many Diabetics wear a Medical Alert bracelet, necklace, tattoo, or carry a warning card. They may also carry sugar, lollies or glucose in their pockets or bag.

There are two types of Diabetic Emergencies:

1. Low Blood Sugar Level – Hypoglycaemia. The pancreas over produces insulin or the regulation of the insulin is irregular.

2. High Blood Sugar Level – Hyperglycaemia. The pancreas does not produce enough insulin.

- Diabetes can occur at any age and can affect people from all lifestyles.
- Diabetes can be hereditary.
- A Diabetic Emergency usually occurs because of Low Blood Sugar Level. (hypoglycaemia)

Hypoglycaemia (Low Blood Sugar Level):

Hypoglycaemia occurs when there is too little sugar (glucose) in the blood. When the blood sugar level falls below the normal level, the functioning of the brain can be altered.

- Overdose of insulin
- Insufficient food
- Exercise
- Alcohol

Signs and symptoms may include:

- Confusion
- Irritable or unusual behaviour
- Pale/sweating skin
- Nausea, headache or dizziness
- Shaking or trembling
- Numbness around the lips or fingers.
- May become unconscious and possibly start fitting.

NOTE:
The onset of Hypoglycaemia or low blood sugar level is RAPID.
For more information on Diabetes please contact the following Internet sites:

Diabetes NSW: www.diabetesnsw.com.au
Diabetes Australia: www.diabetesaustralia.com.au

Diabetes

Treatment:

Follow the Basic First Aid Plan to assess the casualty

- ✓ Give high-energy foods or sugar.
- ✓ Only give food if the casualty is conscious.
- ✓ If medical aid is delayed give sugar every 15 minutes.
- ✓ The casualty will recover quickly if low blood sugar level is the cause.
- ✓ Always check for a medical alert bracelet, necklace, tattoo or card.
- ✓ If the casualty is unconscious place them onto their side.

It is dangerous to give a semi-conscious or unconscious casualty food or drink.

Diet type drinks or sugar free drinks are unsuitable, as they do not contain sugar.

Hyperglycaemia / High Blood Sugar Level:

Hyperglycaemia occurs when there is too much sugar (glucose) in the blood. If left uncontrolled, it may cause the casualty to become unconscious. This condition is a life-threatening situation.

Causes:

- Infection in the pancreas.
- Insufficient insulin
- Uncontrollable
- Stress
- Too little exercise.
- Eating more carbohydrates than normal.

Signs and Symptoms may include

- Excessive thirst
- Confusion
- Rapid pulse
- Warm dry skin
- Frequent urination
- Breath may smell sweet, wine-like.

NOTE:

The onset of Hyperglycaemia or high blood sugar level is SLOW.

Treatment:

Follow the Basic First Aid Plan to assess the casualty.

- ✓ The casualty needs urgent medical advice .
- ✓ Allow casualty to self-administer their insulin.
- ✓ If thirsty give sugar free drinks, water is best.

Giving a diabetic too much sugar will not cause further problems

As a First Aider, you are not permitted to administer the casualty's insulin

An epileptic seizure is due to abnormal electrical activity in the brain. It consists of the involuntary contractions of the muscles in the body. Seizures may be caused by a number of reasons. Those may include head injuries, lack of oxygen reaching the brain, difficult births, damage and subsequent scarring to the brain tissues, CVA (stroke) or a chemical imbalance. Bright flashing lights or certain smells can trigger a seizure.

Absence Seizure:

An Absence Seizure is caused by a minor disturbance in the brains electrical activity. The signs and symptoms of a casualty suffering from Absence Seizures may be so minimal that the condition may go untreated for years.

Tonic Clonic:

A Tonic Clonic is a recurring major disturbance of the brains activity causing violent and severe movements and thrashing. The casualty also becomes unconscious whilst having the seizure. Some sufferers of epileptic seizures may have a warning period, suddenly smelling a strange smell, tasting a funny taste, or suffering a funny feeling. These warning signs often give the sufferer time to find a safe area to lie down to have the seizure.

Signs and symptoms of an Absence Seizure may include:

- Staring blankly ahead.
- Suddenly stop talking through a sentence.
- Funny noises
- Slight jerking or twitching of the lips, eyes, limbs or head.
- Odd movements eg: lip smacking, clicking the tongue, chewing the lip.

Signs and Symptoms of a Tonic Clonic may include:

- Casualty falls to the ground unconscious, letting out a loud cry.
- Full body jerking movements.
- Blue congested face.
- Noisy breathing or wheezing.
- Body becomes stiff and the back arches.
- Congested or standing out blood vessels in the neck.
- Frothing from the mouth possibly blood stained due to the biting of their tongue.
- Possible loss of bladder and bowel control.

Treatment:

Follow the Basic First Aid Plan to assess the casualty.

- ✓ Protect the casualty from injury.
- ✗ Do not restrain the casualty.
- ✓ Make the area around the casualty safe.
- ✓ Place something soft under the casualty's head.

NOTE: Seek medical advice if this is the casualty's first seizure or you suspect the casualty may have injured their head.

Seizures

When the seizure stops

- ✓ If unconscious place the casualty onto their side.
- ✓ Loosen clothing.
- ✓ Talk calmly and quietly to the casualty. They may be confused and unaware of what has happened.
- ✓ If the casualty is sleepy, let them sleep.
- ✗ DO NOT restrain the casualty, place anything into the casualty's mouth, leave the casualty alone, disturb the casualty when sleeping, let the casualty have food or drink immediately after the seizure.

SEEK MEDICAL ATTENTION IF:

- ✓ The seizure lasts more than 5 minutes.
- ✓ Another seizure occurs immediately after the last one or before the casualty has fully recovered from the first one.
- ✓ The casualty does not wake up properly.
- ✓ It is the casualty's first seizure.

Convulsions or seizures in babies and small children

Children commonly suffer convulsions due to high temperatures or illness.

Signs and Symptoms may include:

- Fever, flushed face.
- The body will arch and go rigid.
- Eyes will roll back in their head.
- Jerky body movements.
- Difficulty in breathing.
- Skin, face and lips or extremities will become blue.
- The infant or child will become limp after each episode.

Treatment:

Follow the Basic First Aid Plan to assess the casualty.

- ✓ Don't panic.
- ✓ Call for an Ambulance.
- ✓ Stay with the child and reduce their temperature.
- ✓ Ensure a clear and open airway. If necessary tilt the child's head down.
- ✓ Remove the child's clothes.
- ✓ Sponge with tepid warm water to reduce their temperature.
- ✓ Fan the child with a paper or a magazine. Discontinue if the child starts to shiver.
- ✓ If medical advice is given, reduce the child's temperature by administering medication.

If an Ambulance is required - call immediately - do not delay

Ear Problems

There are a few different types and causes of ear problems.

Some causes of ear problems are:

- Infections of the sinuses, tonsils, or the jaw
- Loud noises
- Dermatitis in the ear
- Reactions to jewellery, cosmetics, ear plugs, or topical medicines

Common Ear Problems:

Otitis Media:

Otitis Media is an inflammation of the middle ear, which can cause a build-up of fluid with or without an infection. If an infection is present, it is usually a viral infection.

Signs can include:

- Crying
- Ear pulling
- Mild fever
- Irritability

Glue Ear:

Glue ear is a form of chronic Otitis Media. It is caused by a build-up of thick or sticky fluid in the middle ear, behind the eardrum, which can cause hearing loss.

Ear Wax:

Ear wax protects the ear and is normal. A build-up of wax can be a problem especially in adults and may require ear wax softening drops. Impacted ear wax usually requires the ear to be cleaned with a syringe by a Doctor.

Swimmers Ear:

Swimmers ear occurs when the humidity, heat, and moisture causes the ear to swell. The addition of water, especially swimming, causes the skin lining of the ear canal to soften and can cause infections.

DO NOT:

Attempt to clean the ear with cotton buds or any other object as this can cause pain and itching and make the condition worse.

When to seek Medical Advice:

- ✓ Ear pain and/or dizziness.
- ✓ Pus or blood discharging from the ear.
- ✓ Ear pain, feeling unwell with a fever.
- ✓ Neck or head trauma prior to the ear pain occurring.
- ✓ Foreign body in the ear.
- ✓ Hearing that is deteriorating or impaired.